0.40 mg/ ℓ for NH₄⁺-N. From these, it is interpreted that the concentration of ammonium ion is relatively low in spite of high TDS values. According to the WAJ data, on the other hand, the concentration of ammonium ion is high in some cases at Yabis and Deir Alla. Therefore, the contamination at Yabis permits no optimism.

(11) Potassium Permanganate (KMnO₄) Consumption Value (PV)

The PV represents the amount of oxidant added to water to oxidize the reductant, i.e. organic substances, in water. But the strength of oxidation condition is rather weak than that of COD, therefore every reductant in water can not be oxidized by KMnO₄. Accordingly, the PV shows the level of organic pollution relatively.

According to the data given in Fig. 54, the total mean values are roughly 9 mg/ ℓ at Maqaren and roughly 11.0 mg/ ℓ at Deir Alla, relatively high both in Yarmuk and the Canal. From the Deir Alla data, it is assumed that the contamination in the section down from Yabis is high, and from the Yarmuk data, the contamination seems to be progressing considerably. This is supported by the evidence of that the differences of the number of total colonies among two stations are large.

3) Summary

In the foregoing, we made a statistical analysis of every item concerned in accordance with the measured data of the WAJ and JVA.

From a general point of view about the conditions of the East Ghor Canal, we notice that the water from Inlet maintains its quality down to Yabis, but its quality is deteriorated heavily from Yabis down to Deir Alla. The mean values also indicate likewise.

Such substances as calcium and magnesium deriving from geological features are relatively high in concentration in the section from Inlet to Yabis which becomes higher down from Yabis. This phenomenon is presumed as such that the amount of such substances flowing out of soil increases due to repetitive use of the Canal water as the land from Yabis to Deir Alla is progressively utilized. As to sodium, potassium, chloride ion, sulfate ion and other, the mean values are considerably high and the variation widths are large in the section from Yabis to Deir Alla. These indicate that the human and agricultural activities are active in this section with resultant contamination to a large degree. The water in this section contains ammonium ion beside nitrate ion. From this, it is known that the water quality there is substantially steady but the water includes much human waste water throughout the Canal, especially in the downstream zone of it. The amounts of PV are almost the same in Yarmuk and at Deir Alla. As there is no detailed data about the Canal, it is difficult to grasp the Canal condition in its entirety. However, when a view is given to the degree of contamination in the downstream zone of the Canal, we assume that the amount of PV flowing into Inlet from a underground water system is considerably small. About bicarbonate ion (HCO₃) which is very high in general, we presume that this phenomenon is due to the local geological feature with much limestones. This also makes up a factor to increase alkalinity, therefore, suggestive of careful pH treatment at purification plant.

Now, we summarize all the facts and opinions given above. The water collected at Deir Alla is affected by human and agricultural activities, therefore, care must be exercised for coagulation and other treatments with respect to water purification. Moreover, the presence of some hazardous organic matters in the water is undeniable because of the source of contaminants, and also the presence of precursor of trihalomethane is presumed due to the fact.

CORRELATION between - Inlet and Adasiyyeh (Whole season)

									·			
DATE	T.D.S T.D.S	DATE	C 1 C1	DATE	S04	\$04	DATE	NN4	N114	DATE	K	K
10 79												
						50.91					3.91	3.91
												5.87
	390 396	17 3 81 66	.66 - 65.6	17 3 81	45.15	38.42	NEAN	0.45				3.91
5 81	512 528	17 5 81 103.	.89 96.09	17 5 81	50.91	-75.88	S.D.	0.46	0.00	17 5 81	6.64	6.26
9.81	534 460	6 9 81 104.	.25 51.13	6. 9.81	71.56	74.45	(ff),	0.33	0.00	6 9 81	-7.82	4, 69
12 81	510 531	29 12 81 92	. 20 92. 91	29 12 81	52.83	: 69. 16	: CORE.		0.00	29 12 81	5.87	5.47
9 82	531 528	[13 9 82 95.	.74 95.74	13 9 82	80.69	77.81	CON. (A)	(A) .	0.91	13 9 82	3.91,	3.91
3 84	300 313	25 3 84 45.	.03 48.22	25 3 84	16.81	19.69	CON. (B)	(B)	0.10	25 3 84	3.91	7.82
5 84	492 480	13 5 84 93.	.67 76.5	13 5 84	57.63	52.83				2 8 84	3.9	3.9
5 84	512 512	22 5 84 96.	.25 82.6	22 5 84	71.52	29.04	1			TOTAL	52.76	53.56
6 84	531 537	2 6 84 98	.35 98 ¹	2 6 84	47.04	67.2			: 1	HEAN	5.28	5.36
7 84	544 537	11 7 84	28 82.95	11 7 84	70.08	70.08	1		- : :	S.D.	1.37	1.57
8 84	569 505					53.76			i	(H)	1.30	1.49
TOTAL.	6710 6727					808.43						0.22
HEAN	479 481	MEAN 82.	.68 78.66	HEAR	53.06	57.75	l			CON. (A)	(A)	4.04
S.D.	79 65	S.D. 23.	.62 17.23	\$.D.	18.24	18.40	i ·			CON.(B)	(B)	0.25
(11)	76 63	(H) 22.	.76 16.60	- (H)	17.57	17.73	ł		- 1			
CORR.									1			
ON. (A)					(A)	28.04	1.5		l			
ON. (R)	(B) 0.70				(8)	0.56	i				'	
	10 79 1 80 1 81 3 81 5 81 1 2 81 1 9 82 3 84 5 84 5 84 7 84 8 84 TOTAL KEAL	10 79 501 499 1 80 371 482 1 81 413 419 3 81 390 396 5 81 512 528 9 81 534 460 12 81 510 531 9 82 531 528 3 84 300 313 5 84 492 480 5 84 512 512 6 84 531 537 7 84 544 537 7 84 544 537 7 84 544 537 7 84 569 505 TOTAL 6710 6727 MEAN 479 481 S.D. 79 65 CORR. 0.84 ON. (A) (A) 145.70	10 79 501 499 1 10 79 101 1 80 371 482 20 1 80 67 1 81 413 419 11 1 81 70 3 81 300 396 17 3 81 66 5 81 512 528 17 5 81 103 9 81 534 460 6 9 81 104 12 81 510 531 29 12 81 92 19 82 531 528 13 9 82 95 3 84 300 313 25 3 84 35 5 84 492 480 13 5 84 93 15 84 512 512 22 5 84 96 6 84 531 537 2 6 84 98 7 84 544 537 11 7 84 88 44 569 505 2 8 84 94 101 101 101 101 101 101 101 101 101 10	10 79 501 499 1 10 79 101.42 101.77 1 80 371 482 20 1 80 67.73 65.6 1 81 413 419 11 1 81 70.21 72.69 3 81 300 306 17 3 81 66.66 65.6 5 81 512 528 17 5 81 103.89 96.09 9 81 534 460 6 9 81 104.25 51.13 12 81 510 531 20 12 81 92.20 92.9 19 82 531 528 13 9 82 95.74 95.74 3 84 300 313 25 3 84 45.03 48.22 15 84 492 480 13 5 84 93.67 76.5 15 84 512 512 22 5 84 96.25 82.6 16 84 531 537 2 6 84 98.35 98 17 84 544 537 11 7 84 28 82.95 18 8 84 569 505 2 8 84 94.15 71.4 10 70 6727 TOTAL 1157.55 1101.19 18 8 84 569 505 2 8 84 94.15 71.4 10 70 663 (h) 22.76 16.60 10 CORR. 0.84 CORR. 0.42 0N. (A) (A) 145.70 CON. (A) (A) 53.86	10 79 501 499 1 10 79 101.42 101.77 1 10 79 1 80 371 482 20 1 80 67.73 65.6 20 1 80 1 81 413 419 11 1 81 70.21 72.69 11 1 81 3 81 390 396 17 3 81 66.66 65.6 17 3 81 5 81 512 528 17 5 81 103.89 96.09 17 5 81 9 81 534 460 6 9 81 104.25 51.13 6 9 81 12 81 510 531 29 12 81 92.20 92.9 29 12 81 9 82 531 528 13 9 82 95.74 95.74 13 9 82 95.74 95.74 13 9 82 5 84 492 480 13 5 84 45.03 48.22 25 3 84 5 84 512 512 22 5 84 96.25 82.6 22 5 84 6 84 531 537 2 6 84 98.35 98 2 6 84 7 8 6 84 531 537 2 6 84 98.35 98 2 6 84 7 8 4 5 4 5 3 7 11 7 84 28 82.95 11 7 84 88 4 569 505 2 8 84 94.15 71.4 2 8 84 7 10 14 15 7 15 10 1 19 10 14 15 7 15 10 10 14 15	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 1 81 41.3 419 11 1 81 70.21 72.69 11 1 81 50.43 3 81 390 396 17 3 81 66.66 65.6 17 3 81 45.15 5 81 512 528 17 5 81 103.89 96.09 17 5 81 50.91 9 81 534 460 6 9 81 104.25 51.13 6 9 81 71.56 12 81 510 531 29 12 81 92.20 92.9 29 12 81 52.83 19 82 531 528 13 9 82 95.74 95.74 13 9 82 80.69 3 84 300 313 25 3 84 45.63 48.22 25 3 84 16.81 5 84 38.4 45.63 48.22 25 3 84 16.81 5 84 584 592 12 22 5 84 96.25 82.6 22 5 84 71.52 6 84 531 537 2 6 84 98.35 98 2 6 84 47.04 7 84 544 537 11 7 84 28 82.95 11 7 84 70.08 8 84 569 505 2 8 84 94.15 71.4 2 8 84 38.4 10.81 10.14 1157.55 1101.19 101.17 101.18 101.	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 1 81 413 419 11 1 81 70.21 72.69 11 1 81 50.43 54.75 381 390 396 17 3 81 66.66 65.6 17 3 81 45.15 38.42 581 512 528 17 5 81 103.89 96.09 17 5 81 50.91 75.88 9 81 534 460 6 9 81 104.25 51.13 6 9 81 71.56 74.45 12 81 510 531 29 12 81 92.20 92.9 29 12 81 52.83 69.16 9 982 531 528 13 9 82 95.74 95.74 13 9 82 80.69 77.81 3 84 300 313 25 3 84 45.03 48.22 25 3 84 16.81 19.69 5 84 492 480 13 5 84 93.67 76.5 13 5 84 57.63 52.83 52 84 512 512 22 5 84 96.25 82.6 22 5 84 71.52 29.04 6 84 531 537 2 6 84 98.35 98 2 6 84 47.04 67.2 7 84 534 537 11 7 84 28 82.95 11 7 84 70.08 70.08 8 8 44 569 505 2 8 84 98.35 98 2 6 84 47.04 67.2 7 84 544 537 11 7 84 28 82.95 11 7 84 70.08 70.08 8 8 84 569 505 2 8 84 98.35 98 2 6 84 47.04 67.2 8 8 8 8 4 569 505 2 8 84 98.35 98 2 6 84 47.04 67.2 8 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 4 47.04 67.2 8 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 4 47.04 67.2 8 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 4 47.04 67.2 8 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 8 4 70.08 70.08 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 8 4 70.08 70.08 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 4 47.04 67.2 8 8 8 8 8 509 505 2 8 8 8 4 98.35 98 2 6 8 8 4 70.08 70.08 8 8 8 4 569 505 2 8 8 8 4 98.35 98 2 6 8 8 4 70.08 70.	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 22 5 84 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 181 413 419 11 1 81 70.21 72.69 11 1 81 50.43 54.75 107AL 881 390 396 17 3 81 66.66 65.6 17 3 81 45.15 38.42 HEAN 479 481 HEAN 82.68 78.66 HEAN 53.06 57.75 S.D. 79 65 S.D. 23.62 17.23 100.12 100.12 100.12 100.14 100.14 100.14 1157.55 1100.19 100.14 1	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 22 5 84 0.12 180 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 2 8 84 0.77 181 413 419 11 1 81 70.21 72.69 11 1 81 50.43 54.75 TOTAL 0.89 3 81 390 396 17 3 81 66.66 65.6 17 3 81 45.15 38.42 HEAN 0.45 581 512 528 17 5 81 103.89 96.09 17 5 81 50.91 75.88 S.D. 0.46 9 81 534 460 6 9 81 104.25 51.13 6 9 81 71.56 74.45 (H) 0.33 12 81 510 531 29 12 81 92.20 92.9 29 12 81 52.83 69.16 CORR. 9 82 531 528 13 9 82 95.74 95.74 13 9 82 80.69 77.81 982 531 528 13 9 82 95.74 95.74 13 9 82 80.69 77.81 584 492 480 13 5 84 93.67 76.5 13 5 84 57.63 52.83 52	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 22 5 84 0.12 0.92 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 2 8 84 0.77 0.98 1 81 41.3 41.9 11 1 81 70.21 72.69 11 1 81 50.43 54.75 107AL 0.89 1.90 3.81 390 396 17 3 81 66.66 65.6 17 3 81 45.15 38.42 HEAN 0.45 0.95 5.81 512 528 17 5 81 103.89 96.09 17 5 81 50.91 75.88 S.D. 0.46 0.00 1.9 81 534 460 6 9 81 104.25 51.13 6 9 81 71.56 74.45 (h) 0.33 0.80 12 81 510 531 29 12 81 92.20 92.9 12 81 52.83 69.16 CORR. 0.00 1.9 82 531 528 13 9 82 95.74 95.74 13 9 82 80.69 77.81 CORR. 0.00 1.5 84 492 480 13 5 84 93.67 76.5 13 5 84 57.63 52.83 19.69 13 5 84 93.67 76.5 13 5 84 57.63 52.83 152 512 22 5 84 96.25 82.6 22 5 84 71.52 29.04 13 5 84 98.35 98 2 6 84 71.52 29.04 13 5 84 57.63 52.83 11 7 84 28 82.95 11 7 84 70.08 70.08 8 8 84 569 505 2 8 84 94.15 71.4 2 8 84 38.4 53.76 10.00 10.	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 22 5 84 0.12 0.92 1 10 79 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 TOTAL 0.89 1.90 11 1 81 70.21 72.69 11 1 81 50.43 54.75 HEAN 6.45 0.95 17 3 81 66.66 65.6 17 3 81 45.15 38.42 HEAN 6.45 0.95 17 3 81 66.66 65.6 17 3 81 45.15 38.42 HEAN 6.45 0.95 17 3 81 65.6 17 3 81 45.15 38.42 HEAN 6.45 0.95 17 3 81 69.91 75.81 50.91 75.88 5.D. 0.46 0.00 17 5 81 9 81 534 460 6 9 81 104.25 51.13 6 9 81 71.56 74.45 (H) 0.33 0.00 6 9 81 12 81 510 531 29 12 81 92.20 92.9 29 12 81 52.83 69.16 CORR. 0.00 29 12 81 9 82 531 528 13 9 82 95.74 95.74 13 9 82 80.69 77.81 CON. (A) (A) 0.91 13 9 82 33 44 300 313 25 3 84 45.03 48.22 25 3 84 16.81 19.69 CON. (B) (B) 0.10 25 3 84 55.84 492 480 13 5 84 93.67 76.5 13 5 84 57.63 52.83 69.16 CON. (B) 0.10 25 3 84 58 4 512 512 22 5 84 96.25 82.6 22 5 84 71.52 29.04 684 531 537 2 6 84 98.35 98 2 6 84 47.04 67.2 784 544 537 11 7 84 28 82.95 11 7 84 70.08 70.08 5.D. 79 65 5.D. 23.62 17.23 5.D. 10.19 10.19 10.10	10 79 501 499 1 10 79 101.42 101.77 1 10 79 64.84 74.45 22 5 84 0.12 0.92 1 10 79 5.86 1 80 371 482 20 1 80 67.73 65.6 20 1 80 24.98 50.91 1 10 70 101.42 101.77 1 10 70 64.84 74.45 22 5 84 0.12 0.92 1 10 79 5.86 1 81 413 419 11 1 81 70.21 72.69 11 1 81 50.43 54.75 181 390 396 17 3 81 66.66 65.6 17 3 81 45.15 38.42 18.40 1.2 0.92 1 10 70 5.86 17 3 81 45.15 38.42 18.40 1.2 0.92 1 10 70 5.86 17 3 81 45.15 38.42 18.40 1.2 0.92 1 10 70 5.86 17 3 81 45.15 38.42 18.40 1.2 0.92 1 1 1 81 5.08 18 5.87 18 50.91 75.88 19.90 11 1 81 5.08 19.90 17 5 81 50.91 75.88 19.90 17 5 81 50.91 75.88 19.90 17 5 81 50.91 75.88 19.90 17 5 81 50.91 75.88 19.90 17 5 81 50.91 75.88 19.90 17 5 81 6.64 19.90 17

: Standard Deviation

of Population

Corr. : Correlation factor

Constant

Con. (A) : }

CORRELATION between - Inlet and Adasiyych (Dry season)

DATE	T.D.S T.D.S	DATE	CI	C1		DATE	S04	S04	DATE	NII4	NH4		DATE	K	X
6 9 81	534 460	6 9 81	104.25	51.13	- 6	9 81	71.56	74.45	2 8 84	0.77	0.98	6	9 81	7.82	4.69
3 9 82		13 9 82	95.74	95.74	13	9 82	80.60	77.81	TOTAL	0.77	0.98	13	9 82	3.91	-3.91
2 6 84		2 6 84	98.35	98	2	6 84	47.04	67.2	HEAN	0.77	0.98	2	8 84	3.9	3.9
1 7 84	544 537		28	82.95	11	7 84		70.08		0.00	0.00			15.63	
2 8 84	569 505	2 8 84	94.15	71.4		8 84		53.76		0.00	0.00		HEAR	5.21	
TOTAL.	2709 2567	TOTAL	420.49	399.22		TOTAL		343.30		1.45	0.00		S.D.	2. 26	
HEAN	542 513	HEAN	84.10	79.84	•	HEAN	61.55			(1)	0.98		(H)	1.85	[0.37]
S.D.	16 33	S.D.	31.59	19.29		S.D.	17,93	9.27	CON. (B)	(B)	0.00		CORR.	1111	0.99
(n)	14 29	(8)	28.26	17.25		: (11)	.16.04	8.29					N. (A)	(A)	3.13
corr.	-0.08	CORR.		-0.16	1.0	CORR.	1 5	0.92				CC	M, (B)	(B)	0.20
CON, (A)	(4) 605.14	CON. (A)	(A)	88.25		N. (A)		39.12							
CON. (B)	(B) -0.17	CON, (B)	(B) :	-0.10	CO	พ. (8)	(8)	0.48							

Table 3. CORRELATION between - Inlet and Adasiyyeh (Rain season)

Table 5. CORKI							DATE	884	NII4	DATE	K	K
DATE T.D.S T.D.S	DATE	CI	Cl	DATE	S04	S04	Unit	. 1413-1			- · · ·	3 00
1 10 79 501 499 20 1 80 371 482	1 10 79 20 1 80 17 3 81 29 12 81 11 1 81 17 5 81 13 5 84 25 3 84 25 5 84 TOTAL HEAN S.D. (H) CORR. CON. (A)	181.42 67.73 66.66 92.20 70.21 103.89 93.67 45.03 96.25 737.86 81.98 20.14 18.99	101.77 65.6 92.9 72.69 54.61 76.5 48.22 82.6 660.49 73.39 17.28 16.29 0.60 30.80	20 1 80 17 3 81 29 12 81 11 1 81 17 5 81 13 5 84 25 3 84 22 5 84 TOTAL MEAN S.D. (N) CORR.	24.98 45.15 52.83 50.43 56.91 57.63 16.81 71.52 435.10 48.34 17.60 16.59	50.91 38.42 69.16 54.75 38.42 52.83 19.69 29.04 427.67 47.52 17.91	HEAN S.B. (M) CORR. CON. (A) CON. (B)	0.12	0.92 0.00 0.00 0.00	20 1 80 17 3 81 29 12 81 11 1 81 17 5 81 25 3 84 TOTAL HEAN	5.08 5.87 5.86 6.64 3.91 37.13 5.30 1.05 0.97	5.87 3.91 7.82 38.71 5.53

Table 4. CORRELATION between - Adasiyyeh and Yabis (Whole season)

						أن
BATE T.D.S T.D.S DATE CL	C1 DATE	S04 S04	DATE	NIIA NIIA	DATE	K K
	94.07 2 7 74	69.12 59.52	26 1 75 0	0.208 0.362	2 7 74	5.07 4.29
2 7 74 544 512 2 7 74 95.85 26 1 75 496 474 26 1 75 88.75	80.58 26 1 75		1~~	0.05 0.05		4.29 3.9
100 100 100 100 100 100			The second second	0.242 0.88		4.29 2.73
100 000	57.15 30 3 75			0.06 0.18	30 3 75	3.51 2.73
100 0 100 100 100 00 00 10				1.09 2.14	10 4 75	5.07 4.68
111111111111111111111111111111111111111	89.46 27 4 75		177	0.25 0.49	27 4 75	5.46 4.68
121 1 10 000	88.75 22 5 75		1 1	0.840 4.8	22 5 75	6.24 5.46
	92.3 18 11 75		1	0.92 0.35	18 11 75	5,46 5,46
10 11 10 020	74.46 4 4 76		20 0	0.98	4 4 76	5.86 5.47
100	85.45 27 11 76			4.67 10.25	27 11 76	5.86 5.86
10 10 00 00	1			0.52 1.14		7.03 4.69
	92.55 8 10 78			0.42: 1.51	8 10 78	7.43 8.21
8 10 78 498 500 8 10 78 92.91 6 12 78 474 458 6 12 78 84.39			1	0.40 1.42	6 12 78	7.43 6.65
	83.33 13 2 79				13 2 79	4.3 4.3
13 2 79 474 488 13 2 79 85.1	92.19 3t 3 79		1	(A) 0.14		4.05 5.08
31 3 79 486 486 31 3 79 93.61	102.12 1 5 79			(8) 1.92	1 5 79	5.86 5.08
1 5 79 520 528 1 5 79 LUR.5					3 6 79	5.85 5.85
3 6 79 548 517 3 6 79 103 89					1 10 79	7.82 5.87
1 10 79 499 466 1 10 79 101.77 1 12 79 395 259 1 12 79 76.24					1 12 79	4.69 3.52
1 (12) 3 (0.00) 3 (12) 4					20 1 80	3.91 3.91
20 1 80 482 342 20 1 80 65.6				Section 1	17 3 81	3.91 4.3
17 3 81 396 409 17 3 81 65 6					13 9 82	3.91 3.91
13 9 82 528 633 13 9 82 95.74				1.	23 1 83	3.91 3.91
23 1 83 384 358 23 1 83 70 57					4 4 83	5,47 5.47
4 4 83 396 403 4 4 83 65 25				4	25 3 84	7.82 11.73
25 3 84 313 328 25 3 84 48.22 22 5 84 512 499 22 5 84 82.6				•	2 8 84	3.9 3.9
					TOTAL.	138.40131.64
					HEAN	
					S.D.	
	2273.91 TOTAL	1580.591601.9			(n)	
			ă l		CORR	0.77
					CON. (A)	(A) -0.53
S.D. 69 102 S.D. 16.00 (H) 68 100 (H) 15.80					CON. (B)	
	0.81 CORR.					
1		_		:		
CON. (B) (B) 1.05 CON. (B) (B)	0.31 600.00	, (0) 0,0	٠. لـ		_	

Table 5. CORRELATION between - Adasiyyeh and Yabis (Dry season)

		DATE	1.0.5	T.D.S		DATE	CI	CI	O	A TE	S04	\$04	ĐẠT	e NII4	NII4		DATE	. К	K
1	2	7 74	544	512	2	7 74	95.85	94.07	2 7	74	69.12	59.52	2 8 8	4 0.98	1	2	7 74	5.07	4.29
11	3	6 77	514	:: 499	13	6 77	93,96	79,18	13 6	77	44.32	48,03	TOTA	L 0.98	1.00	13	6 77	7.03	4.69
1	3	6 79	548	517	3	6 79	103.89	103.45	3 6	79	75,88	61.47	HEA	N. 0.98:	1.00	.3	6 79	5.85	5.85
11	3	9 82	528	633	13	9 82	95.74	88.65	13 9	82.	77.81	153.7	S.D	0.00	0.00	13	9 82	3.91	3, 91
1	2	6 81	537	820	2	6 84	98	94.5	2 6	84	.67.2	71.04	(H	0.00	0.00	2	8 84	3.9	3.9
11	1	7 84	537	518	H:	7 84	82.95	96.25	11 7	84	70.08	63.84	CORR		0.00		TOTAL	25, 76	22.64
1	2	8 84	505	512	2	8 84	71.4	89.6	2 8	84	.53.76	38.4	CON, (A) (A)	1.00		MEAN	5.15	4.53
ŀ	Ţ	rotat.	3743	4011	l :	TOTAL	641.79	645.70	. TO	M.	458.17	196, 80	CON, (B) (B)	0.00		S.D.	1.33	0.81
1		HEAN	535	573		HEAN	-91.68	92.24	MI	EAN	65.45	70.86				ŀ	(H)	1.20	0.72
1		S.D.	15	118		S.D.	. 10.92	7.53	S.	D.	:12.13	38.09		, ,			CORR.	1	0.65
1		(H)	14	109	1.	. (n)	10.11	6.98		(11)	11.23	35, 26		4.0		CO	N. (A)	(A).	2.52
١	ť.	CORR.	142	-0.01	- 1	CORR.		0.27	COL	₹R.		0.62	100			CO	N. (B)	(B)	0.39
1	CON	(A) .P	(n)	37.20	ÇO	H.; (A)	(A)	74.82	CON.	(A)	: (A)	-56.11							
ı	CON	4. (B)	(B)	-0.12	C01	N. (R)	(8)	0.19	CON.	(B)	. : (B)	1.94							

Table 6. CORRELATION between - Adasiyyeh and Yabis (Rain season)

DATE T.D. S T.D. S											
10 4 75 489 486 18 4 75 84.13 74.55 10 4 75 52.8 59.52 22 5 75 1.09 2.14 10 4 75 5.07 4.68 22 5 75 5.44 506 22 5 75 100.11 88.75 22 5 75 5.66 43 33 75 5.024 5.46 5.46 5.36 5.28 531 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.31 18 11 75 52.8 5.38 52.8 59.52 22 5 75 0.077 0.05 18 11 75 5.66 5.46 6.46	DATE T.D.S T.D.S	DATE CI	CI	DATE SO4	S04	DATE	NH4	NH4	DATE	K	K
10	27 4 75 550 528	27 4 75 98.69	89.46 27	4 75 64.80	70.56	27 4 75	9.86	0.18	27 4 75	5.46	4.68
18 11 75 528 531 18 11 75 91.24 92.3 18 11 75 70.56 59.04 15 2 75 0.077 0.05 18 11 75 5.46 5.46 30 3 75 409 396 30 3 75 66.03 57.15 30 3 75 48 43.2 26 1 75 0.08 0.362 30 3 75 3.51 2.73 15 2 75 300 377 15 2 75 44.37 57.15 15 2 75 21.6 31.68 27 11 76 0.840 4.8 15 2 75 2 75 4.29 2.73 26 1 75 496 474 26 1 75 88.55 80.58 26 1 75 76.8 57.6 4 4 76 0.25 0.49 26 1 75 4.29 3.9 27 11 76 480 486 27 11 76 89 85.45 27 11 76 43.22 83.68 22 5 84 0.92 0.35 27 11 76 5.86 5.86 4 4 76 480 442 4 4 76 83.33 74.46 4 4 76 69.16 62.43 7074		10 4 75 84.13	74,55 10	4.75 52.8	59.52	22 5 75	1.09	2.14	10 4 75	5.07	4.68
18 11 75 528 531 18 11 75 91 24 92 3 18 11 75 70 56 59 94 15 2 75 0.077 0.051 18 11 75 5.46 5.46 30 3 75 66 0.3 57 15 30 3 75 48 43 2 26 1 75 0.208 0.362 30 3 75 5.46 5.46 3.168 27 11 76 98 98 77 15 15 2 75 2 76 31 68 27 11 76 98 88 75 90 58 26 1 75 76 8 57 6 4 4 76 9.25 0.49 26 1 75 4.29 3.9 27 11 76 480 486 27 11 76 89 85 45 27 11 76 43 22 83 68 22 5 58 4 9.22 3 27 11 76 5.86 5.86 5.86 4 4 76 400 442 4 4 76 83 33 74 46 4 4 4 76 83 33 74 46 4 4 76 83 33 74 46 4 4 76 69 16 62 43 70 12 88 10 78 82 9 92 55 8 10 78 65 32 70 12 88 80 9 9.25 4 4 76 5.86 5.46 5.	22 5 75 544 506	22 5 75 100.11	88.75 22	5 75 46.08	56.64	30 3 75	0.242			6.24	
15 2 75 300 377 15 2 75 44.37 57.15 15 2 75 21.6 31.68 27 11 76 0.840 4.8 15 2 75 4.29 2.73 26 1 75 496 474 26 1 75 88.75 80.58 26 1 75 76.8 57.6 4 4 76 0.25 0.49 26 1 75 4.29 3.9 27 11 76 480 486 27 11 76 89 85.45 27 11 76 43.22 83.68 22 5 84 0.92 0.35 27 11 76 5.86 5.86 4 4 76 480 442 4 4 76 83.33 74.46 4 4 76 69.16 62.43 TOTAL 3.69 9.25 4 4 76 5.86 5.86 81 81 8 78 498 500 8 10 78 92.91 92.55 8 10 78 65.32 70.12 HEAN 0.46 1.16 8 10 78 7.43 8.21 6 12 78 84.39 81.56 6 12 78 84.39 81.56 6 12 78 57.16 47.55 S.D. 0.41 1.61 6 12 78 7.43 6.65 1 10 79 499 466 1 10 79 101.77 90.07 1 10 79 74.45 66.76 (m) 0.39 1.51 1 10 19 7 7.82 5.87 1 5 79 520 528 1 5 79 108.5 102.12 1 5 79 57.15 66.28 CONR. 0.62 1 5 79 5.86 5.08 1 12 79 395 259 1 12 79 76.24 40.78 1 12 79 42.27 19.21 CON. (A) (A) 0.07 31 3 79 4.05 5.08 1 12 79 395 259 1 12 79 76.24 40.78 1 12 79 42.27 19.21 CON. (B) (B) 2.37 1 12 79 4.69 3.52 13 2 79 474 480 13 2 79 85.1 83.33 13 2 79 44.18 35.94 20 1 80 65.6 62.05 17 3 81 38.42 17.29 4.69 3.52 13 3 384 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 25 84 512 499 22 5 84 82.6 78.05 22 5 84 29.04 48 23 1 83 396 393 4 4 83 65.25 65.6 4 4 83 44.19 44.67 22 5 84 512 499 22 5 84 82.6 78.05 22 5 84 29.04 48 23 1 83 384 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 313 320 25 3 84 48.22 59.7 66.31 23 1 83 49.47 47.55 25 3 84 51.2 499 22 5 84 82.6 478.05 25 5 85 42.091 30 4 80 44.8 50		18 11 75 91.24	92.3 18	11 75 70.56	59.04	15 2.75	0.077				
26 1 75 496 474 26 1 75 88.75 88.75 88.58 26 1 75 76.8 57.6 4 4 76 0.25 0.49 26 1 75 4.29 3.9 27 11 76 480 486 27 11 76 89 85.45 27 11 76 43.22 83.68 22 5 84 0.92 0.35 27 11 76 5.86 5.86 4 4 76 480 442 4 4 76 83.33 74.46 4 4 76 69.16 62.43 TOTAL 3.69 9.25 4 4 76 5.86 5.47 8 10 78 498 500 8 10 78 92.91 92.55 8 10 78 65.32 70.12 HEAN 0.46 1.16 8 10 78 7.43 8.21 10 79 499 466 10 79 101.77 90.07 1 10 79 74.45 66.76 (m) 0.39 1.51 1 10 79 7.82 5.87 1 5 79 520 528 1 5 79 108.5 102.12 1 5 79 57.15 66.28 CORR. 0.62 1 5 79 5.86 5.08 31 3 79 486 486 31 3 79 93.61 92.19 31 3 79 57.15 59.07 CON. (A) 0.07 31 3 79 4.69 3.52 13 2 79 474 480 13 2 79 85.1 83.33 13 2 79 44.18 36.94 20 1 80 65.6 62.05 17 3 81 38.4 396 499 17 3 81 65.6 62.05 17 3 81 38.42 17.29 4 4 83 3.96 499 17 3 81 65.6 62.05 17 3 81 38.42 17.29 4 4 83 3.96 499 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 3.96 499 17 3 81 65.6 62.05 17 3 81 38.42 17.29 12 5 3 84 313 320 25 3 84 82.6 78.05 22 5 84 29.04 48 3 5.07 570 570 570 570 570 570 570 570 570 5	39 3 75 409 396	30 3 75 66.03	57.15 30	3 75 3 48	43.2	26 1 75	0.208				
27 11 76 480 486 27 11 76 89 85.45 27 11 76 43.22 83.68 22 5 84 0.92 0.35 27 11 76 5.86 5.86 4 4 76 480 442 4 4 76 83.33 74.46 4 4 76 69.16 62.43 TOTAL 3.69 9.25 4 4 76 5.86 5.47 8 10 78 92.91 92.55 8 10 78 65.32 70.12 HEAN 0.46 1.16 8 10 78 7.43 8.21 10 79 499 466 6 10 79 101.77 90.07 1 10 10 79 7.82 5.87 1 5 79 520 528 1 5 79 108.5 102.12 1 5 79 57.15 66.28 CORR. 0.62 1 5 79 5.86 5.08 1 12 79 93.61 92.19 31 3 79 57.15 66.28 CORR. 0.62 1 5 79 5.86 5.08 1 12 79 76.24 40.78 1 12 79 42.27 19.21 COR. (a) 0.00 3 1.51 1 12 79 4.69 3.52 13 2 79 474 480 13 2 79 85.1 83.33 13 2 79 44.18 36.94 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 3.91 4.3 19.1 10 10 10 10 10 10 10 10 10 10 10 10 10	15 2 75 300 377						0.840				
4 4 76 480 442 4 4 76 83.33 74.46 4 4 76 69.16 62.43 TOTAL 3.69 9.25 4 4 76 5.86 5.47 8 10 78 498 500 8 10 78 92.91 92.55 8 10 78 65.32 70.12 HEAN 0.46 1.16 8 10 78 7.43 8.21 6 12 78 474 458 6 12 78 84.39 81.56 6 12 78 57.16 47.55 S.D. 0.41 1.61 6 12 78 7.43 6.65 1 10 79 499 466 1 10 79 101.77 90.07 1 10 79 74.45 66.76 (M) 0.39 1.51 1 10 79 7.82 5.87 1 5 79 108.5 102.12 1 5 79 57.15 66.28 CORR. 0.62 1 5 79 57.05 5.08 1 12 79 76.24 40.78 1 12 79 42.27 19.21 CON. (A) 0.07 31 3 79 4.05 5.08 1 12 79 76.24 40.78 1 12 79 74.18 36.94 12 79 474 480 13 2 79 85.1 83.33 13 2 79 44.18 36.94 13 2 79 85.1 83.33 13 2 79 44.18 36.94 13 2 79 85.1 83.33 13 2 79 44.18 36.94 13 2 79 85.1 83.33 13 2 79 44.18 36.94 14 83 3.96 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.44 19.46 7 12 12 12 12 12 12 12 12 12 12 12 12 12	26 1 75 496 474				57.6	4 4 76	0.25				
8 10 78	27 11 76 480 486										
6 12 78	4 4 76 480 442					TOTAL					
1 10 79	8 10 78 498 500				70.12	- HEAN					
1 5 79 520 528 1 5 79 108.5 102.12 1 5 79 57.15 66.28 CORR. 0.62 1 5 79 5.86 5.08 31 3 79 486 486 31 3 79 93.61 92.19 31 3 79 57.15 59.07 CON. (A) (A) 0.07 31 3 79 4.05 5.08 1 12 79 395 259 1 12 79 76.24 40.78 1 12 79 42.27 19.21 CON. (B) (B) 2.37 1 12 79 4.69 3.52 13 2 79 474 480 13 2 79 85.1 83.33 13 2 79 44.18 36.94 20 1 80 65.6 36.88 20 1 80 50.91 5.76 20 180 482 342 20 1 80 65.6 36.88 20 1 80 50.91 5.76 20 180 482 342 20 1 80 65.6 62.05 17 3 81 38.42 17.29 17 381 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 17 381 3.91 4.3 4 4 83 396 393 4 4 83 65.25 65.6 4 4 83 44.19 44.67 23 1 83 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 23 1 83 384 384 29 22 5 84 82.6 78.05 22 5 84 29.04 48 25 3 84 313 320 25 3 84 48.22 50.7 25 3 84 19.69 38.42 7007ALT12.64107.44 7007ALT10185 9750 7007ALT1078.601 1642.04 7007ALT1078.601 1642.04 7007ALT12.41091.97 7007ALT12.64107.44 7007ALT12.41091.97 7007ALT12.64107.44 7007ALT12.64107ALT12.64107.44 7007ALT12.64107.44 7007ALT12.64107ALT12.64107ALT12.64107ALT12.64107ALT12.64	6 12 78 474 458				47.55	S.D.					
31 3 79	1 10 79 499 466				66.76	(N)	0.39				
1 12 79 395 259 1 12 79 76.24 40.78	1 5 79 520 528										
13 2 79 474 488 13 2 79 85.1 83.33 13 2 79 44.18 36.94 20 1 80 482 342 20 1 80 65.6 36.88 20 1 80 50.91 5.76 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 4 4 83 396 393 4 4 83 65.25 65.6 4 4 83 44.19 44.67 23 1 83 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 22 5 84 512 499 22 5 84 82.6 78.05 25 84.9 14 48 25 3 84 7.82 11.73 25 3 84 313 320 25 3 84 48.22 50.7 25 3 84 19.69 38.42 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL 1122.421091.97 MEAN 459 443 MEAN 81.18 74.64 MEAN 51.02 49.64 S.D. 70 74 S.D. 16.81 17.87 (M) 68 72 (M) 16.42 17.46 (M) 15.36 18.73 CONR. 0.79 CONR. 0.79 CONR. 0.84 CONR. 0.51 CONR. 0.51 CONR. (A) (A) 11.01	31 3 79 486 486				59.07	CON. (A)					
20 1 80 482 342 20 1 80 65.6 36.88 20 1 80 50.91 5.76 17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.29 18 4 83 396 393 4 4 83 65.25 65.6 4 4 83 44.19 44.67 23 1 83 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 25 3 84 512 499 22 5 84 82.6 78.05 22 5 84 29.04 48 25 3 84 313 320 25 3 84 48.22 50.7 25 3 84 19.69 38.42 26 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL1122.421091.97 27 MEAN 459 443 MEAN 81.18 74.64 MEAN 51.02 49.64 S.D. 1.37 1.98 28 S.D. 70 74 S.D. 16.81 17.87 S.B. 15.72 19.18 (M) 68 72 (M) 16.42 17.46 (M) 15.36 18.73 29 CORR. 0.79 CORR. 0.80 (ON.(A) (A) 2.39 CON.(A) (A) 18.01 (CON.(B) (B) 1.16	1 12 79 395 259					CON. (B)	(B)	2.37			
17 3 81 396 409 17 3 81 65.6 62.05 17 3 81 38.42 17.20 4 4 83 396 393 4 4 83 65.25 65.6 4 4 83 44.19 44.67 23 1 83 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 22 5 84 512 499 22 5 84 82.6 78.05 22 5 84 29.04 48 25 3 84 313 320 25 3 84 48.22 50.7 25 3 84 19.69 38.42 TOTAL 10195 9750 TOTAL 1786.01 1642.04 THEAN 459 443 HEAN 81.18 74.64 HEAN 51.02 49.64 S.D. 70 74 S.D. 16.81 17.87 S.B. 15.72 19.18 (M) 1.34 1.93 (M) 68 72 (M) 16.42 17.46 (H) 15.36 18.73 CORR. D.79 CORR. D.79 CORR. D.84 CORR. 0.80 (G) (A) (A) 1.18	13 2 79 474 480										
4 4 83 396 393 4 4 83 65.6 4 4 83 44.67 4 83 5.47 3.91 23 1 83 384 384 23 1 83 70.57 66.31 23 1 83 49.47 47.55 23 1 83 3.91 3.91 22 5 84 512 499 22 5 84 82.0 78.05 22 5 84 29.04 48 25 3.84 7.82 11.73 25 3 84 313 320 25 3.84 48.22 50.7 25 3.84 19.69 38.42 707AL112.64107.44 TOTAL 10195 9750 TOTAL 1786.01 1622.04 TOTAL1122.421091.97 MEAN 5.36 5.12 MEAN 450 43.04 43.04 43.64 43.64 43.64 43.64 43.64 43.64 5.12 5.12 5.12 5.12 5.12 5.12 5.12 5.12 5.12 5.12							:				
4 483 396 393 4 483 65.25 65.6 4 483 44.67 23 183 384 384 384 23 183 70.57 66.31 23 183 49.47 47.55 23 183 3.91 3.91 22 584 512 499 22 584 82.6 78.05 22 584 29.04 488 25 3.84 7.82 11.73 25 3.84 313 320 25 3.84 48.22 50.7 25 3.84 9.69 38.42	17 3 81 396 409				17.20						
22 5 84 512 499 22 5 84 82.6 78.05 22 5 84 29.04 48 25 3 84 7.82 11.73 25 3 84 313 320 25 3 84 48.22 50.7 25 3 84 19.69 38.42 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL 1122.421091.97 MEAN 459 443 MEAN 81.18 74.64 MEAN 51.02 49.64 5.0. 70 74 5.0. 16.81 17.87 S.D. 15.72 19.18 (M) 68 72 (M) 16.42 17.46 (M) 15.36 18.73 (CORR. 0.80 CORR. 0.79 CORR. 0.84 CORR. 0.84 CORR. 0.84 CORR. 0.51 CON. (A) (A) 57.44 CON. (A) (A) 2.39 CON. (A) (A) 18.01 CON. (B) (B) 1.16						· ·	:				
25 3 84 313 329 25 3 84 48.22 50.7 25 3 84 19.69 38.42 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL 112.64107.44 MEAN 5.02 49.64 S.D. 70 74 S.D. 16.81 17.87 S.B. 15.72 19.18 (M) 68 72 (M) 16.42 17.46 (M) 15.36 18.73 CORR. 0.89 CORR. 0.79 CORR. 0.80 CON. (A) (A) 57.44 CON. (A) (A) 2.39 CON. (A) (A) 18.01 CON. (B) (B) 1.16	23 1 83 384 384					1					
TOTAL 10195 9750 TOTAL 1786.01 1642.04 TOTAL1122.421091.97 HEAN 459 443 HEAN 81.18 74.64 HEAN 51.02 49.64 S.D. 70 74 S.D. 16.81 17.87 S.B. 15.72 19.18 (M) 1.34 1.93 (M) 68 72 (M) 16.42 17.46 (H) 15.36 18.73 (CORR. 0.81) CORR. 0.79 CORR. 0.84 CORR. 0.51 (CON. (A) (A) 1.10 CON. (A) (A) 57.44 CON. (A) (A) 2.39 CON. (A) (A) 18.01 (CON. (B) (B) 1.16						i .					7
HEAN 459 443 HEAN 81.18 74.64 HEAN 51.02 49.64	25 3 84 313 320					l					
S.D. 70 74 S.D. 16.81 17.87 S.D. 15.72 [9.18] (M) 68 72 (M) 16.42 17.46 (M) 15.36 18.73 CORR. 0.80 CORR. 0.79 CORR. 0.84 CORR. 0.51 CON. (A) (A) 57.44 CON. (A) (A) 2.39 CON. (A) (A) 18.01 CON. (B) (B) 1.16		1	1642.04	101401155.45							
(M) 68 72 (M) 15.42 17.46 (M) 15.36 18.73 CORR. 0.80 CORR. 0.51 CON.(A) (A) -1.10 CON.(A) (A) 57.44 CON.(A) (A) 2.39 CON.(A) (A) 18.01 CON.(B) (B) 1.16		1 7									
CORR. 0.79 CORR. 0.84 CORR. 0.51 CON.(A) (A) -1.10 CON.(A) (A) 57.44 CON.(A) (A) 2.39 CON.(A) (A) 18.01 CON.(B) (B) 1.16										1.34	
CON. (A) (A) 57.44 CON. (A) (A) 2.39 CON. (A) (A) 18.01 CON. (B) (B) 1.16		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4				1 .				(4)	
440 (m. 44 (r) 000 (m. 40)									•		
CON. (B) (B) 0.84 CON. (B) (B) 0.88 CON. (C) 0.62									COR. (B)	(B)	1.10
	CON.(R) (B) 0.84	CON. (B) (B)	บ.ชุง เ	on. (B) (B)	0.62	1					

100	CORRELATION bety		and Vahie	(Whole season)
mable 7	CORRELATION betw	zeen – Adasiyyen	SHC Lang	(MITOTO BOTTOTA)

- 1 7	aute 1								11003	DATE	NO3	юз
	DATE	C1/\$04	C1/S04	DATE	C03	C03	DATE	11003				
-				2 7 74	7.8	6	2 7 74	234.3	229, 36	2 7 74		6.63
	2 7 74				12.9	5.4	26 1 75	204:35	237.29		9.61	9.61
12				26 1 75 30 3 75	10.2		15 2 75	172,02		(9 -		7.53
11					11.1	9	30 3 75	186,66	190.32			10.63
3					11.4	17.1	10 4 75	231.19	239.12			14.04
1	O			18 11 75	6.3		27 4 75	231.8				12.49
12				4 4 76	9.16	9.47	22 5 75	223.87	254.98		3.46	14.53
	2 5.75 8 11 75	C		27 11 76	9.77	14.6	18 [1 75]	2311,58	226.9			10.63
	4 4 76				7.63	6.41	4 4 76	201.33	202.55		12.05	
	7 (1.76				10.39	9.77	27 11 76	209.87	198.89		23.29	
	3 6 77				10.39	11	13 6 77	247.09	249.53	8 10 78	27 0	29.69
- 1	8 10 78			13 2 79	15.27	12.83		233.06	203,77 193,4		12 119	11.29
: 1	6 12 78			31 3 79	13.44	15.88		200.11	224.51	13 2 79		11.95
	3 2 79			L 5 79	7.33	8.55		215.36	111.67	•	(i. 51	11.07
	3 79		1.56		12.22	10.99	31 3 79	219.63 217.19	241.59		16.39	15
1	1 5 79	1.9	1.54			15.89	1 5 79	231.83	222.07		11.96	16.6
1	3 6 75	1.3			12.22	10.99		222.08	206.21	1 10 79	15.51	13.7
1	1 10 79				3.67	5.8	4	189.13	135.44	1 12 79		17.2
1.	1 12 79					3.67 11.04	*		222.08	20 1 80	25.69	33.8
12	20 1.80					3.6	1	178, 15			19.93	23.9
- [4	7 3 8					3.0 16.5		250.75			9.61	8.8
	3 9 8				9.9 4.2	2.4		197.06	199.5	23 1 83	12.98	13.1
- 2	23 1 8						1	180.59		4 4 83	10.54	10.9
-	4 4 8				238.17			164.72	142.76	25 3 84	12.85	7.7
	25 38						1		230.58	22 5 84	10	
1	22 58			1 :			1	251.94	222.65	2 6 84	14.4	
- 1	2 6 8					0.49		197.77	203.13		9,17	
	11 78						2 8 84	247.6	264.74	4 To 12 T	8.2	
1	2 8 8						TOTAL.	6153.75	6121.25	The state of the s	190.16	385.12
:	TOTA	-					HEAN	212.20	211.08			13.28
- 1	MEA						S.D.	25.32	35.95		5.51	
- 1	S, D (H						(H)	24.87	35.33		5.41	
-	CORR		-0.0				CORR.		0.56		(4)	0.83
	CON. (A						CON (A)		41.32		(A)	
- [CON. (B			1			CON. (B)	(B)	0.80	CON. (B)	()	U.34
ŀ	COM. (D	, 10	, ,,,,,	ت ا								:

Table 8. CORRELATION between - Adasiyyeh and Yabis (Dry season)

	UATE	C1/S04	C1/S04	DATE	C03	c03	DATE	1103	<u> </u>	DATE		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
. 5	7 74	1.39	1.58	2 7 74	7.8	6		234.3	229.36	2 7 74 13 6 77	7.3	6.63
13	6 77 6 79		1.68	13 6 77 3 6 79	12.22	10,99	3 6 79	231.83	222.07	3 6 79 13 9 82	11.96	. 6.6
13	9 82 6 84		1.33	2 6 84 11 7 84	9.9	3.6 16.5	2 6 84	251.94	222.65	2 6 84	14.4	10.8
	7 84 8 84			L TOTAL	50 75	45 90	11 7 84 2 8 84	217.6	264.74	11 7 84 2 8 84	8,2	8.3
	TOTAL HEAN			S.D.	2.68	5.25	TOTAL HEAN	237.33	237.65	HEAN	11,99	10.23
	S.D.			1		4.79 0.68	(8)		23.27	(h)	5.12	3.24
C	CORR. ON. (A)		0.18 1.04				CON. (A)	(A)		CON. (A)	(A)	
	ON. (B)			<u> </u>			CON. (B)	(B)	0.96	CON, (B)	(B)	0.27

Table 9. CORRELATION between - Adasiyyeh and Yabis (Rain season)

price			-			حضيب مشروب					-		
	DAT	CL.	/S04	C1/S04	DATE	C03	C03	DATI	IIC03	11003	DATE	Ю3	N03
27	4.7	5	1.52	1.27	27 4 75	11.4	17.1	27 4 75	231.8	207.4	27 4 75	15.06	14.04
10	4 7	,	.59	1.25	10 4 75	11.1	9				10 4 75	9,57	10.63
22	5 7	5	2.17	1,57	18 11 75		9.6	22 5 7	223.87	254.98	22 5 75	11.52	12.49
18	11.7	5	.29	1.56	30 3 75	10.2		18 11 7		226.9	18 11 75	13.46	14.53
30	3 7	5	1.38		26 1 75		5.4	30 3 7	186.66	190.32	30 3 75	5.76	7.53
15	2 7	5	2.05	1.80	27 11 76			15 2 7			15 2 75		11.6
26	1.7	5	1.16	1.40	4 4 76	9.16		26 1 7			26 1 75	9.61	9.61
27	11 7	្រ 🔆 រ	2.06	1.02	8 10 78	10.39		27 11 70			27 11 76		11.6
4	4 7)	.20	1.19	6 12 78	10.39		4 4 70		202:55	4 4 76		
8	10 7	}	1.42	1.32	1 10 79			8 10 7	233.0G	203.77	8 10 78	27.9	29.69
6	. 12 7	3 11 1	1.48	1.72	1 5 79	7.33	8.55	6 12 78	3 200.11	193.4			
-1	10.73	}	1.37	1.35	31 3 79	13.44	15.88	1 10 79	222.08				13.7
1	5.79)	.90	1.54	13 2 79	15.27	12.83	1 5 79	217.19	241.59	1 5 79	16.39	15
31	3,79)	.64	1.56	17 3 81	12.22	10.99	31 3 79	219.63		31 3 79		11.07
1	12.79)	.80	2.12	23 1 83	3.67	5.19	1 12 79	189.13	135.44	1 12 79	22.59	17.2
13	2 7	} '}	.93	2.26	22 5 84	22.8	11.04	13 2 79	215.36			11.51	
20	18) [. 29	6.40	TOTAL	179.78	177.41	20 1 8	170.83	222.08	20 1 80	25.69	33.8
17	3 8		.71	3.59	MEAN	11.24	11.09	17. 3 8	178.15		17 3 81		23.9
-4	4 : 83	3	.48	1.47	S.D.		3.48	4 4 8	180.59	204.99		10.54	10
23	1.8	} [1	L:43	1.39	(n)	4.10					23 : 1 : 83		12.1
22	- 5 8	1 2	2.84	1.63	CORR.		0.36	22 5 8	212.89	230.58		- 10	11
25	3 8	1 2	2.45	1.32	CON. (A)	· (A)	7.72					12.85	7.7
	TOTAL	. 3	1.16	40.05	CON. (B)	(B)	0.30				TOTAL		
100	MEAL	!	.69	1.82				HEAL					
'	S.D.		1.42	1.15		1.1	100	S, D			S.D.		6.67
	()	i, *(1.41	1.13			F 1 11	(H)				5.42	6.51
1	CORR			-0.12	1.5		100	CORR		0.37			0.91
C	ON. (A)		(A)	2.39					(A)		CON. (A)	(A)	-1.17
C	08. (B)		(B)	-0.34			• :	CON. (B)	(B)	0.60	CON. (B)	(B)	1.10
					l e i								

Table 10. CORRELATION between - Adasiyyeh and Yabis (Whole season)

DATE Ca	Co DATE Mg	ng	DATE Na	Na	DATE	Cathe/Natk	Ca+Hg/Na+K
Units on			D.11.C. 11.G				
2 7 74 52.80 53	.8 2 7 74 29.54	30.66 2	7 74 74.75	62.1	2 7 74	1.03	
	.2 26 1 75 23.59	27.23 26	1 75 79.35			0.86	1.11
	.4 15 2 75 15.70	21.03 15	2 75 35.65	51.75		1.30	1.09
30 3 75 35.60	10 30 3 75 22.13		3 75 60.95	51.75		0.90	1.14
	52 10 4 75 50.00	27.23 10	4 75 63.25			1.05	1.17
	4 27 4 75 27.60	26.99 27	4 75 81.65	51.75		0.90	1.41
# F# 1 T. TT : TACTO ::	52 22 5 75 27.23	27.22 22	5 75 80.5	70.15		0.90	1.05
	.6 18 11 75 25.90	24.7 18		82.8		0.85	0.86
	28 4 4 76 21.64	22.37 4	4 76 68.97	65.52	4 4 76		0.92
• • • • • • • • • • • • • • • • • • • •	89 27 11 76 22,37	24.56 27	A = 1 A = 1 A = 1 A = 1 A = 1	70.11	27 11 76	0.89	0.94
	3 13 6 77 28.90		6 77 78.16	64.37	13 6 77	0.93	1.14
8 10 78 46.69 46.			10 78 87.36	79.31	8 10 78	0.76	0.83
6 12 78 43.09 42.		18.97 6	12.78 78.17	72.42	6 12 78	0.75	0.77
13 2 79 42.28 45.		21.23 13	2 79 80.46	75.86	13 2 79	0.77	5
	29 31 3 79 28.08		3 79 72.4	72.4		0.99	0.97
	5 1 5 79 25.17	29.91 1	5 79 82.76	78.16	1 5 79	0.86 0.86	1.00
3 6 79 54.1 51		27.23 3		80.46	3 6 79		0.91
1 10 79 48.7 43.			10 79 89.66	74.72	1 10 79	0.77	
1 12 79 43.49 36.	and the contract of the contract of	0.24		33.34	1 12 79	0.87	0.99
	31 20 1 80 21.4	21.77 20	180 58.62		20 1 80	0.93	3.00
	39 17 3 81 17.51	18.96 17	3 81 57.01	46.44	17 3 81	0.99	1.33
13 9 82 53.51 56.		53.5 13	9 82 80.47	71.27	13 9 82	0.97	1.46
	9 23 1 83 18.97	19.7 23	1 83 59.77	45.7	23 1 83	0.99	1.38
4 4 83 43.69 46.		20.67 4	4 83 55.18	55.18	4 4 83	1.05	1 11 0 81
	36 25 3 34 13.98		3 84 41.38	45.98	25 3 84	0.96	0.01
	16 22 5 84 25.32	25.92 22	5 84 73.6 6 84 85.1		7.7	0.96 0.85	0.98
	53 2 6 84 23.28	23.4 2	6 84 85.1 7 84 78.22	80.5	2 /8 84	0. no 0: 86	1.84
11 7 84 50 4 47 2 8 84 48 6		28.44 11		73.6		25, 75	31.94
10.0	55 2 8 84 20.16	83.64 2	8 84 75.9 TOTAL 2089.691	71.3	/ TOTAL	0.92	1.14
TOTAL 1297, 231381. HEAN 44.73 47.		175.48	NEAN 72.06	63.46	S.D.	0.32	0.44
HEAN 44.73 47. S.D. 8.25 5.			S.D. 13.49	15.02	、.U. (H)	0, 10 0, 10	0.44
(h) 8.11 5.		13.69	(h) 13.49	14.76		0,10	0.25
CORR. 0.11 5.		13.45 0.19	CORR. 13.20	0.71	CON. (A)	(A)	0.41
CON. (A) (A) 36.			N (A)	6.53	CON. (B)	(n)	0.79
CON (B) (B) 0.)N (B) (B)	0.79			
33(0)	107	0.11					arata A

Table 11. CORRELATION between - Adasiyyeh and Yabis (Dry season)

 ,,,,				1.3					
DATE	Ca	Ca	DATE	ilg	ng:	DATE	Na	Na	
7 74-6 77 6 79 9 82 6 84 7 84 8 84 TOTAL HEAN S.D. (H) CORR. ON. (A) ON. (B)	52.80 50.30 54.1 53.51 52.8 50.4 48.6 362.51 51.79 2.03 1.88 (A)	56.11 53 47.6 55 365.11	13 6 77 3 6 79 13 9 82 2 6 84 11 7 84 2 8 84 TOTAL HEAR S.B. (H) CORK,	28, 90 28, 21 28, 09 23, 28 26, 52	27.23 53.5 23.4 28.44 83.64 277.39	13 6 77 3 6 79 13 9 82 2 6 84 11 7 84 2 8 84 TOTAL HEAN S.D. CORR.	78.16 89.66 80.47 85.1 78.22 75.9 562.26 80.32 5.32 4.92	64.37 80.46 71.27 80.5 73.6 71.3 503.60 71.94 7.11 6.59 0.84	3 6 79 0.86 0.91 13 9 82 0.97 1.46 11 7 84 0.85 0.98 2 8 84 0.86 1.84 TOTAL 5.50 7.60 HEAN 0.92 1.27 S.D. 0.00 0.35 (II) 0.00 0.32 COURT. 0.00

Table 12. CORRELATION between - Adasiyyeh and Yabis (Rain season)

lao	te 12	,	T/T/C)	PWITION	OCUMO	· .	100001					
	DATE	Ca	Ca	DATE	ทธ	ng	DATE	Na	No		lg/Na+X C	atMg/NatK
				07 / 75	27.60	26.99	27 4 75	81.65	51.75	27 4 75	0.90	1.41
27	4 75	50.60	52.4			27.23		63.25	63.25		1.05	1.17
10	4 75	21.70		10 4 75	50.00			80.5	70.15	22 5 75	0.90	1.05
22	5 75	51.20	52			27.22		82.8	82.8		0,85	0.86
18	11 75	48.80	51.6		25.90	24.7		60.95		30 3 75	0.90	1.14
30	3 75	35,60	40		22.13	21.88		35.65			1.30	1.09
15	2 75	36, 40	38.4		15.70	21.03		79.35	63.25		0.86	1.11
26	1 75	18.00	47.2		23.59	27.23		19.00	90.20	27 11 76	0.89	0.94
27	11 76	46.09	46.89		22.37	24.56					0.95	0.92
4	4 76	19.29	43.28	4 4 76	21.64	22.37	4 4 76	68.97	65.52	8 10 78	0.76	0.83
8	10 78	46.69	46, 49	8 10 78		25.77	8 10 78	87.36	79.31		0.75	0.77
	12 78	43.09	12.28	6 12 78	20.79	18.97	6 12 78	78.17	72.42		0.77	0.91
-	10.79	48.7	43.89	1 10 79	26.14	30.04	1 10:79	89.66	74.72			1.00
ł	5 79	51.3	53.5	1 5 79	25.17	29.91	1 5 79	82.76	78.16		0.86	0.97
31	3 79	47.29	47.29		28.08	28.08	31 3 79	72.4	72.4		0.99	
	12 79	43.49	36.07		18.48	0.24			33.34		0.87	0.99
13	2 79	12.28	45.09		22.98	21.23	13 2 79	80.46			0.77	0.83
20	1 80	36.67	51.91		21.4			58.62	20.69		0.93	3.00
20 17	3 81	43.09	48.69			18.96		57.01	46.44	17 3 81	0.99	1.3
11	4 83	43.69	45.69		* . T. C. T. T. T.	19.94	1 7 7 7 7	55.18	52.88	4 4 83	1.05	1.10
ų na	1 83	43.89	47.9			16.54			59.77	23 1 83	9.99	1.0
23	5 84	23.8	50.06			25.92		73.6	66.07	22 5 84	0.96	0.7
22		33.06	32.86	1		13.62	1	41.38	45.98	25 3 84	0.96	0.8
25	3 84	934.721			520.58		100	1527.43		TOTAL	20.25	24.0
	TOTAL					22.46	1	69.43	61.25	/ HEAR	0.92	1.0
	MEAN		46.12		23.66			14.31			0.10	0.4
	S.D.	8.23	5.62				1		15.31		0.10	0.4
	(H)	8.04	5.49		6.88		t .	10.00	0.6		1,51	0.2
	CORR.		0.16		,	0.53		(A)			(n)	0.3
	M. (A)	(A)	41.45			10.87	The state of the s				(8)	0.7
CC)N.(B)	(B)	0.11	CON. (B)	(B)	0.49	CON. (B)	. (0)	. 9.11	, , ,,,,		

Table 13. CORRELATION between - Yabis and Dier Alla (Whole season)

																	-	
		DATE	T.D.S	T.D.S		DATE	CI	Çì		DATE	S04	S04	DATE	NIIA	NH4	DATE	K	K
,	,	7 74	512	764	,	7.74	04.07	168.62	,	7 74	50.59	111 84	26 1 75	0.362	0.208	2 7 74	4.29	8.19
		1 75		576		1 75		114.31		1 75	57.6		15 2 75	0.05	0.05			5.07
		2 75		704				197.38		2 75	31.68			0.88	0.71			7.8
		3 75		569		3 75		115.37		3.75	43.2			0.18	0.21			6.24
Lin		4.75		717		4 75		153.36		4.75		117,12		2.14	7.05	10 4 75	4.68	7.8
27		4 75		659		4 75	89.46	132.41		4 75	70.56			0.05	0.1	27 4 75	4.68	6.24
22	:	5 75	506	806	22	5 75		198.8		5 75	56.64	129,6	4 4 76	0.49	0.40	22 5 75	5.46	11.7
118	1	1.75	531	659	18	11 75	92.3	137,03	18	11.75	59.04	126.70	27, 11 76	4.8	0.48	18 11 75	5 46	8.2
16	1	2 76	314	486	16	2 76	48.58	91.84	16	2 76	42.27	75.88	2 8 84	1	1		3.91	6.64
14		4 76	442	544	4	4 76	74.46	109.92	4	4 -76		81,65		9.95	10.21			7.82
27		1 76				11 76	85.45	117.73			-83.68			1.11	1.13			7.03
23		9 78				9.78	95.03	326.23		9:78		288.18		1.53	2.24			25.02
		0,78				10:78	92.55	274.46				215, 17		1.45	2.11			24.63
		2 79		595			83.33	125.88				67.24		1		13 2 79		
		3, 79				3 79	92.19				59.07			(A)	0.65			8.21
		5 79		1516		ુ5∵79∶		469.84				125.52		(B)	0.43			35.58
		0 79		1723		10 79	90.07	511.33		10 79		417.38				1 10 79		38.71
		2 79		425		12 79	40.78			12 79						1 12 79		10.16
20		1,80		319		1 80	36.88			1 89			1			20 1 80		
17	٠.	3 81				3 81	62.05	62.05		3 81	17.29			:		17 3 81 13 9 82		
13		9 82					88.65	117.02		9 82		83.57	1			13 9 82 23 1 83		3.91
23		1 83				1 83	56.38	64.54					: 		:	23 1 83		
		1.83					66.31								F-1		, 3.31 [11.73	
1.4		4:83				4 83	61.7				57.64				i e i i e	11 7 8		11.7
4		4 83				4 83	65.6				44:67	36.98		: .		2 8 8		
25		3 84					50.7	51.06 83.65		3 84 5 84		55.2		1			125.78	
22		5 84				. ;5 84 ≐6 84	78,05 94.5	90.3		6 84						HEAR		10.88
1.2		6 84					96.25	231.15		7 84		171.36				1	1.80	
[1]		7 84 8 84						106.05				48				(10)		
1		10 8 10 10 1					2285.24				1635.05				1.7	CORR		0.34
1		HEAL				MEAN		150.33		MEAN		111.37			11	CON. (A)		
1		S.D.				S.D.	18.42	113.34		S, D.		102.06				CON. (B)		
1		(h)				(11)	18.11	111.44		(H)		100.34						
1		CORR,		0.31		CORR.	.0.11	0.55		CORR.		0.28			:			
1		1. (A)		197.00		ON. (A)	(1)	-109.41		ON. (A)	(n)							
		v. (B)				ON. (B)	(B)	3.41		ON. (B)		1.13				1		
L									بسك				د			*-		

Table 14. CORRELATION between — Yabis and Dier Alla (Dry season)

			·		
DATE T.D.S T.D.S	DATE CI CI	DATE SO4	SO4 DATE N	IHA NIIA DA1	TR K K
2 7 74 512 704 23 9 78 506 1280 13 9 82 633 588 2 6 84 820 531 11 7 84 518 921 2 8 84 512 531 TOTAL 3501 4555 MEAN 584 759 S.D. 126 295 (M) 115 269 CONR0.50 CON.(A) (A)******* CON.(B) (B) -1.18	23 9 78 95.03 326.23 13 9 82 88.65 117.02 2 6 84 94.5 90.3 11 7 84 96.25 231.15 2 8 84 89.6 106.05 TOTAL 558.10 1039.37 HEAN 93.02 173.23 S.D. 3.12 90.92 (M) 2.84 83.00 CORR. 0.59 CON. (A) (A) -1440.67	13 9 82 153.7 83 2 6 84 71.04 68 11 7 84 63.84 171 2 8 84 38.4 TOTAL 442.21 771 HEAN 73.70 128 S.D. 40.68, 89 (H) 37.14 81 CORR, -0 CON. (A) (A) 161	18 TOTAL 1. 57 NEAN 1. 64 S.D. 0. 36 (N) 0. 48 CORR. 59 CON. (A) (60 CON. (B)	00 1.00 23 9 00 1.00 13 9 00 0.00 11 7 1 00 0.00 2 8 1 0 0.00 1 1 7 1 0 0.00 2 8 1 0 0.00 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	32 3.91 7.82 34 3.9 11.7 34 3.9 3.9 3.9 3.9 3.0 21.08 56.63 3.0 4.22 11.33 3.10 4.22 11.33 3.10 4.6 7.28 3.10 4.6 7.28 3.10 4.6 7.28 3.10 4.6 7.28 4.10 4.10 4.10

		and the second second	****	(Dain concon)
Table 15	CORRELATION	hetween -	Yabis and Dier Alla	(Kam acason)

	41 A TE	1.0.5	TOS	DATE	CI	C1	DATE	S04	804	DATE	NII4	NIIA	DATE	K	K l
				ļ			15 2 75	31.68	55.68	15 2 75	0,05	0.05		2.73	7.8
	2 75	377	704	1.0	57.15	197.38		70 56	108.48		0.18	0.21			6.24
27	4 75	528	659		89,46	132.41		56 64	129.6			7.05		5.46	11.7
22	5 75	506	806		88.75	198.8		43.9	86.4		0.88	0.71		2.73	6.24
30	3 75	396	569		57.15	115.37		50 59	117.12		0.362	0.208	10 4 75	4.68	7.8
1 1	4 75	486	717		74.55	153.36		50 04	126.70	27 11 76	4.8	0.48	18 11 75	5.46	8.2
	11 75	531		18 11 75	92.3	137.03		67.6	81.6		0.49	0.40	26 1 75	3.9	5.07
26	1.75	. 474	576		80.58	114.31	26 1 75	93 68	107.59		0.05	0.1	27 11 76	5.86	7.03
27	11, 76	486	592		85.45	111,13	27 11 76	62.43			8,95	9.21	4 4 76	5.47	7.82
4	:4.76	442	544		74.46	109.92		42.27	75.88		1.12	1.15	16 2 76	3.91	6.64
16	2 76	314	186	1	48.58	91.84			215.17		1.64		8 10 78	8.21	24.63
8	LO 78	500	1059		92.55	274.46		10.15	425.52	(11)	1.53	2.24		5.08	35.58
1.	5 79	528			102.12	469.84			98.46	the second second second		0.29		5.08	
31	3, 79	486	582		92.19	127.65		59.07		CON. (A)	(A)	0.67		4.3	
13	2 79	480	595		83.33		13 2 79	36.94	67.24		(B)	0.43		3.52	10.16
1 '	12 79	259	425		40.78		1 12 79	19.21	81.65				1 10 79	5.87	
1 1	10 79	466	1723		90.07		1 10 79		417.38		: .		20 1 80	3.91	
20	1 80	342	319			51.06			21.13		100	:	17 3 81	4.3	
117	3 81	:409	409	17 3 81	62.05	62.05		17.29					23 1 83	3.91	3.91
123	1 83	384	358	23 1 83	66.31	64.54		47.55				:	23 83	3.91	
23	1.83	358	358	23 1 83	56.38	64.54		48.51	59.56	5 '		1			11.73
4	4 83	393	400	4 4 83	65.6	63.83		44.67	18.25						226.23
4	4 83	403	400	4 4 83	61.7	63,83		57.64	18.25	1 .					10.77
22	5 84	499	492	22 5 84	78.05	83.65		48							9.85
25	3 84	320	281	25 3 84	50.7	51.06		38.42	36.98				(H)	1.92	
	TOTAL		15229	TOTAL	1727.14	3470.52		192.84	2569.54	1			CORR		0.34
1	HEAN	432	635		71.96	144.61	MEAN		107.06				CON. (A)	(n)	
1	S. D.	77	351		18.26	119.29	S.D.		106.35				CON. (B)	(B)	
1 .	(8)	75			17.87	116.78	(11)	18.07	104.11				con. (B)	(0)	1.11
1	CORR.		0.53			0.60			0.50			: 1			
	N. (A)	(A)	*****			-135.31	CON (A)		-35.58						
	N. (B)				(R)	3,89		(8)	2.87	1				1.	

Table 16. CORRELATION between - Yabis and Dier Alla (Whole season)

	:	DATE	C1/S04	C1/S04	DATE	C03	CO3		ĐΛ	ΤĒ	IIC03	IIC03		DATE	NO3	NO3
١						6	9	2	7		229.36	213.5	2	7 74	6.63	12.26
	26 26	7 74	1.58 1.40		2 7 74 26 1 75	5.4	10.8	26		75	237.29	228.14	26	1 75	9.61	11.82
	15	2 75	1.80	3.54	15 2 75	9.6	7.2	15		75 :		221.43		2 75		11.52
:	30	3 75	1.32		30 3 75	11.1	10.2			75	190.32	197.03		3 75	7.53 10.63	
	10	4 75	1.25		10 4 75	9	15.3 11.4			75 75	239.12	228.14 229.36	10 27		14.84	
	27	4 75 5 75	1.27	1.22	27 4 75 18 11 75	17.1 9.6	14.4		5		254.98	223.26			12.49	10.19
	22	5 75 11 75	1.56		4 4 76	9.47	_			75	226.9	208.6		11 75	14.53	16.39
	16	2 76	1.15		23 9 78	10.08	3.66	16		76	162.29	215.37		2 76		10.63
.	1	4.76	1.19	1.35	8 10 78	9.77	11.6	4		76	202.55	209.26	4		10.63 11.6	18.27
		11 76	1.02		13 2 79	12.83	15.27	27		76 78	198.89 226.95	231.84 255.02		11 76	23.96	
: :	23	9 78 10 78	1.71		31 3 79 1 10 79	15.88 15.89	4.88 6.11	8			203.77	201.94	8		29.69	
	8 13	2 79	2.26		1 1 1 1 1 1 1 1 1	10,99	9.78			79	224.51	225.73	13	2 79	11.95	12.18
	31	3 79	1.56		23 83	5.8	3.67	31	3		111.67	234.27	31	3 79	11.07	9.74
	1	5 79	1.54	1.10	23 1 83	5.19	3.67	1		79	241.59	280.64 222.08	l	5 79 10 79	15 13.7	17.27 9.75
	I .	10 79	1.35		4 4 83	3.67	6.11			79 79	206.21 135.44	158.63	1	12 79	17.2	17.28
' -	20 20	12 79	2.12 6.40		22 5 84	11.04 3.6	15 15.6			80	222.08		_	1 80	33.8	
	17	3 81	3.59		11 7 84	16.5	13.2			81	200.72	202.55	17	3 81	23.9	22.24
- 1	13	9 82	0.58		2 8 84	2.4	4.5		9	82	272.1	263.56		9 82	8.8	9.26
	23	1 83	1.16	1.08		200.91	200.82		1	83	199.5	161.68		1 83	13.1	14.13
	23	1 83	1.39		HEAN	9.57	9,56		. 1	83 83	189.74 198.89	161.68 208.65	23	1 83 4 83	12.1	14.13 34.19
	1	4 83 4 83	1 07 1 47		S.D. (H)	4,40 4,30	4.24				204.99	208.65	4	4 83	10.0	34.19
	25	3 84	1.32			4.30	0.20			84	142.76	151.3		3 84	7.7	9.57
	22	5 84	1.63			(A)	7.74		- 5	84	230.58	217,77	22	5 84	- 11	9.5
	2	6 84	1.33			(B)	0.19		_	84	222, 65 203, 13	206.18	2	6 84	10.8	9.6
	11	7 84° 8 84	1.51				:	11 2		84 84	264.74	237.7 262.3	11	7 84 8 84	9.2 8.3	23.2 10
	2	TOTAL	2.33 50.75					۰			F10	6426.72	, -			470.26
		HEAN	1.69		i .					FAN	208.01	214.22		HEAN	13.63	15.68
		S.D.	1.03	0.74						D.	35.78	31.77		S.D.	6.41	8.29
		(H)	1.01				٠			(K)	35.18	31.24		(H) CORR.	6.30	8.15 0.34
	٫.	CORR.	(4)	0.32 1.24				١,	ON.	RR. (A)	(A)	0.52 118.54		ON. (A)	(A)	9.68
)N.(A))N.(B)	. (A) (B)				-		ON.		(B)	0.46	1 .	ON. (B)	(B)	0.44
	Ι "		(6)	0.20	1.			L			1		<u> </u>			

Table 17. CORRELATION between - Yabis and Dier Alla (Dry season)

	DATE	C1/S04	C1/S04	DATE	603	CQ3		DATE	#C03	11003	DATE	ноз	NO:
2	7 74	1.58	1.51	2 7 74	6	9	2	7.74	229, 36	213.5	2 7 74	6.63	12.2
23	9 78	- 1.71	1.13	23 9 78	10.08						23 9 78		
13	9 82	0.58	1.40	2 6 84	3.6	15.6	13	9 82	272.1	263, 56	13 9 82	8.8	9.2
S	6 84	1.33	1.32	11 7 84	16.5	13.2	2	6 84	222.65	206.18	2 6 84	10.8	9.
Н,	7 84	1.51	1.35	2 8 84	2.4	4.5	11	7 84	203.13	237.7	11:7:84	9.2	23.
2	8 84	2.33	2.21	TOTAL	38.58	45.96	2	8 84	264.74	262.3	2 8 84	8.3	: 1
	JAIOT	9.04	8.92	HEAN	7.72	9.19	٠,	TOTAL	1418.93	1438.26	TOTAL	67.69	106.4
	HEAN	1.51	1.49	S.D.	5.72	5.24		MEAN	236.49	239.71	MEAN	11.28	17,7
	S.D.	0.57	0.37	(H)	5.12	4.69		S.D.	26.50	25.02	S.D.	6.30	13.0
	(11)	0.52	0.35	CORR.		0.18		(11)	24.20	22.84	: (H)	5.80	11.9
:: 1	CORR.	100	0.62	CON. (A)	(A)	7.95		CORR.		11.62	CORR.		0.8
	Y. (A)		0.90		(8)	0.16	CC	N (A)	(A)	100.18	CON. (A)	(A)	-3.0
CO	N. (B)	(B)	0.39		<u> </u>		CC	N.:(B)	(B)	0.59	CON. (B)	(B)	1.8

Table 18. CORRELATION between - Yabis and Dier Alla (Rain season)

				<u></u>					·		A 100 M	
	DATE	C1/S04	C1/S04	DATE CO	3 003	DATE	IIC03	IIC03	DATE	NO3	коз	
į	15 2 75	1.80	3.54	15 2 75 9.	6 7.2	15 2 75	189.1	221.43	15 2 75	11.6	11.52	
ı	27 4 75	1.27	1.22	27 4 75 17.				229.36		14.04	14.49	
Ì	22 5 75	1.57	1.53	30 3.75 11.	1 10.2			223, 26		12.49	10.19	ı
1	30 3 75		1.34		9 15.3			197.03		7.53	8.59	
1	10. 4.75	1.25	1.31	18 11 75 9.	6 14.4	10 4 75		228.14	10 4 75	10.63	11.51	ı
i	18 11 75	1.56	1.08					208.6	18 11 75	14.53	16.39	
	26 175	1.40	E.40	4 4 76 9.4	7 9.47	26 1 75		228.14	26 1 75	9.61	11.82	
1	27 11 76	1.02	1.09	8 10 78 9.7		27 11 76	198.89	231,84	27 11 76	11.6	11.07	į:
ļ	4 4 76	1.19	1.35					209.26		10.63	18.27	
ı	16 2 76	1.15	1.21	13 2 79 12.8	3 15.27	16 2 76	162.29	215.37	16 2 76	17.53	10.63	ĺ
į	8 10 78	1.32	1.28	1 10 79 15.8		8 10 78	203.77	201.94	8 10 78	29.69	13.95	1
1	1 5 79	1.54	1.10	17 3 81 10.9	9 9.78	1 5 79	241.59	280.64	1 5 79	15	17.27	ı
ı	31 3:79	1.56	1.30	23 1 83 5 1	9 3.67	31 3 79	111.67	234.27	31 3:79	11.07	9.74	ı
١	13 2 79	2.26	1.87	23 1 83 5.	8 3.67	13 2 79	224.51	225.73	13 2 79	11.95	12.18	
Ì	1 12 79	2.12	1.09	4 4 83 3.6	7 6.11	1:12:79	135.44	158.63	1 12 79	17.2	17.28	
1	1 10 79	1.35	1.23	22 5 84 11.0	4 15	1 10 79	206.21	222.08	1 10:79	13.7	9.75	
١	20 1 30	6.40	2:42	TOTAL 162.3	3 154.BG	20 1 80	222.08	160.46	20 1 80	33.8	21.26	
ı	17 3 81	3.59	2.53	HEAN LO. 1	5 9.68	17 3 81	200.72	202.55		23.9	22.24	
ı	23 1 83	1.39	1.08	S.D. 3.9	5 4.07	23 1 83	189.74	161.68		12.1	14.13	
ı	23 1 83	1.16	1.08	(n) 3.8	3 3.94	23 1 83	199.5	161,68	23 1 83	13.1	14.13	
1	4 4 83	1.47	3.50	CORR.	0.21	4 4 83	204.99	208.65	4 4 83	10	34.19	
١	4 4 83	1.07	3.50	CON. (A) (A	7.55		198.89	208.65	4 4 83	10.9	34.19	
1	22 5 84	1.63	1.52	CON, (B) (B	0.21		230.58	217.77	22 5 84	- 11	9.5	
I	25 3 84	1.32	1.38	*******		25 3 84	142.76	151.3	25 3.84	7.7	9,57	
1	. INTOT	41.71	39.95			TOTAL	4821.29	4988.46	TOTALS	41.30	363,86	
Ì	HEAN	1.74	1.66			HEAN	200.89	207.85	HEAN	14.22	15.16	į
Ì	S.D.	1.13	0.81			S.D.	34.60	30.41	S.D.	6.42	6.95	
ł	(11)	1.10	0.79			(n)	33.87	29.77	· (II)	6.29	6.80	
1	CORR.		0.29		:	CORR.		0.40	CORR.	-	0.19	
I	CON. (A)	(A)	1.29	1.1		CON. (A)	. (A)	137.54	CON. (A)	(A)	12.32	
I	CON. (B)	· (B)	0.21			CON (B)	(B)	0.35	CON. (B)	(B)	0.20	
Ĺ	A 1781										لنسسا	į.

Table 19. CORRELATION between - Yabis and Dier Alla (Whole season)

2 1 26 1 15 2 30 3 10 27 4 16 2 4 4 4 27 1 1	2 76 1 76 1 76 1 78	53.8 47.2 38.4 49 52 52.4 52 51.6 32.86 43.28 46.89	57.2 53 70 63.4 68 74.8 48.09 50.9	2 7 26 1 15 2 30 3 10 4 27 4 22 5 18 11	74 30.4 75 27.4 75 21.4 75 21.4 75 26.5 75 26.5 75 27.4 76 14.5	23 - 31.61 13 - 37.33 18 - 31.61 23 - 38.18 19 - 31.49 22 - 42.56 7 - 32.2	2 26 15 30 10 27 22	2 75 3 75 4 75 4 75 5 75	62.1 63.25 51.75 51.75 63.25 51.75 70.15	97,75 82,8 111,55 78,2 101,2	2 26 15 30 10 27	7 74 1 75 2 75 3 75 4 75 4 75		1,27 1,11 1,09 1,14 1,17 1,41 1,05	Ca+Ne	0.98 1.02 0.79 1.00 1.99 4.97
26 15 2 30 3 4 4 4 27 1 1	1 75 2 75 3 75 4 75 4 75 5 75 1 76 1 76 1 76	47.2 38.4 40 52 52.4 52.5 51.6 32.86 43.28 46.89	58 57.2 53 70 63.4 68 74.8 48.09 50.9	26 1 15 2 30 3 10 4 27 4 22 5 18 11 16 2	75 27.1 75 21.1 75 21.3 75 27.3 75 26.5 75 24.3 76 14.3	23 - 31.61 13 - 37.33 18 - 31.61 23 - 38.18 19 - 31.49 22 - 42.56 1 - 32.2	26 30 10 27 22	1 75 2 75 3 75 4 75 4 75 5 75	63.25 51.75 51.75 63.25 51.75 70.15	82.8 111.55 78.2 101.2	26 15 30 10 27	1 75 2 75 3 75 4 75 4 75		1.11 1.09 1.14 1.17 1.41 1.05		1.02 0.79 1.00 0.99 4.97 0.81
26 15 2 30 3 4 4 4 27 1 1	1 75 2 75 3 75 4 75 4 75 5 75 1 76 1 76 1 76	47.2 38.4 40 52 52.4 52.5 51.6 32.86 43.28 46.89	58 57.2 53 70 63.4 68 74.8 48.09 50.9	26 1 15 2 30 3 10 4 27 4 22 5 18 11 16 2	75 27.1 75 21.1 75 21.3 75 27.3 75 26.5 75 24.3 76 14.3	23 - 31.61 13 - 37.33 18 - 31.61 23 - 38.18 19 - 31.49 22 - 42.56 1 - 32.2	26 30 10 27 22	1 75 2 75 3 75 4 75 4 75 5 75	63.25 51.75 51.75 63.25 51.75 70.15	82.8 111.55 78.2 101.2	26 15 30 10 27	2 75 3 75 4 75 4 75		1.09 1.14 1.17 1.41 1.05		0.79 E.01 0.99 0.97 0.81
15 2 30 3 10 4 27 4 22 5 18 11 16 2 4 4 27 11	2 75 3 75 4 75 4 75 5 75 1 75 2 76 4 76 1 76 1 76	38.4 40 52 52.4 51.6 32.86 43.28 46.89	57.2 53 70 63.4 68 74.8 48.09 50.9	15 2 30 3 10 4 27 4 22 5 18 11 16 2	75 21.4 75 21.4 75 27.5 75 26.5 75 27.5 75 24.1	03 37.33 18 31.61 23 38.18 20 31.49 22 42.56 27 32.2	15 30 10 27 22	2 75 3 75 4 75 4 75 5 75	51.75 51.75 63.25 51.75 70.15	111.55 78.2 101.2 92	15 30 10 27	3 75 4 75 4 75		1.14 1.17 1.41 1.05		0.90 0.97 0.81
30 3 10 4 27 4 22 5 18 11 16 2 4 4 27 11	3 75 4 75 1 75 5 75 1 75 2 76 1 76 1 76 1 76	40 52 52.4 52 51.6 32.86 43.28 46.89	53 70 63.4 68 74.8 48.09 50.9	39 3 10 4 27 4 22 5 18 11 16 2	75 21.4 75 27.5 75 26.5 75 27.5 75 24.5 76 14.5	18 31.61 23 38.18 19 31.49 22 42.56 7 32.2	30 10 27 22	3 75 4 75 4 75 5 75	51.75 63.25 51.75 70.15	78.2 101.2 92	30 10 27	. 4.75 .4.75	in de la companya di salah di	1.17 1.41 1.05		0.99 0.97 0.81
10 4 27 4 22 5 18 1,1 16 2 4 4 27 1,1	4 75 4 75 5 75 1 75 2 76 4 76 1 76 1 76	52 52.4 52 51.6 32.86 43.28 46.89	70 63.4 68 74.8 48.09 50.9	10 4 27 4 22 5 18 11 16 2	75 27.5 75 26.5 75 27.5 75 24 76 14.5	33 38.18 99 31.49 22 42.56 7 32.2	10 27 22	4 75 4 75 5 75	63.25 51.75 70.15	92	27	4 75		1.41 1.05		4.97 0.81
27 4 22 5 18 11 16 2 4 4 27 11	1 75 5 75 1 75 2 76 1 76 1 76	52.4 52 51.6 32.86 43.28 46.89	63.4 68 74.8 48.09 50.9	27 4 22 5 18 11 16 2	75 26.5 75 27.5 75 24 76 14.5	99 31.49 22 42.56 7 32.2	27	4 75 5 75	70.15					1.05	s as a Hair	0.81
22	5 75 1 75 2 76 1 76 1 76 1 78	52 51.6 32.86 43.28 46.89	68 74.8 48.09 50.9	22 5 18 11 16 2	75 27.1 75 24 76 14.1	22 42.56 7 32.2	22			124.2	22	5 75			11. 1.	4.4
18 1 1 16 2 4 4 27 1 1	1 75 2 76 1 76 1 76 1 78	51.6 32.86 43.28 46.89	74.8 48.09 50.9	18 11 16 2	75 24 76 14.5		[18]	1 70								
16 2 4 4 27 11	2 76 1 76 1 76 1 78	32.86 43.28 46.89	48.09 50.9	16 2	76 14.5	0 52 50		41 10	82.8			11 75	1.	0.86	. 75	1.08
4 . 4 27 11	76 176 178	43.28 46.89	50.9			1. 3.1.0.1	16	2 76	45.98			2.76		0.95	100	1.31
27 11	1 76 1 78		56 11		76 22.	31.12	4	4 76	65.52			4:76		0.92		1,99
			40.11	27 11	76 24.5				70.11	89,66		11 76		0.94	5 4 7 4	0,89
23 - 9		43.28	110.62	23. 9	78 28.1	33.5	23			224.15		9 78		0.79	1 2 1	0.66
8 10	1 78	46.49	76.55	8 10	78 25.					163.23		10.78		0.83		0.68
	2 79	45.03	45.09	13 2	73 21 3			2.79		105.75		2.79		0.83		0.64
31 3	3 79	47.29	55.51	31 3				3 79	72.4	97.7	31	3.79		0.97		0.84
1 3	5 79	53.5	145, 29		79 29.5					291.97	1	5 79		1.00		0.67
1.10	79	43.09	127.65		79 30.1			10.79		312.66		10 79		0.91		0.59
1 12	2 79	36.07	58,71	1 12	79 0.7			12 79	33.34			12 79		0.99	:	1.06
	l 80	51.91	36,67		80 21.			1 80	20.69	45.98		1 80		$\frac{3.00}{1.33}$		1.30
	3.81	. 48.69	49.29		81 18.9			3 81	46.44			3 81	: '	1.46		: 1.84
	82	56.11	67.33		82 53.			9 85	71.27	82.76		9 82		1.38	- i	1.47
	[83 .	48.9	52.91		83 19			1.83	45.7	43.68		[.83		1.81	- :	1.47
	1 83	47.9	52.91		83 16.5			1 83	59.77			3.84		18.0		1.07
	83	46.49	18 1		B3 20.0				55.18 52.88			7 84		0.98	. :-	0.92
	1 83	45.69	18 [83 19.9			4 83 3 84	32.80 45.98			8 84	٠.	1.84		0.97
	3 84	32.86			84 13.6 84 25.5				66.07			TOTAL	•	3D. 04		25.24
	5 84	50.66 53	47.2) 51		84 25.5 84 23.			6 84	80.5			MEAN		1.16		0.97
-	6 84 : 7 84	47.6	89.6		84 28.			7 84	73.6	133.4	•	S.D.	٠.	0.45		0.22
• •		47.0 55	75.4		84 83.0			8 84	71.3			(H)		0.44		0.22
	8 84 1141 1	409, 451				14 988.11			1866.64		1	CORR.				0.20
	HEAN	46.98	64.57		AN 25.			MEAN		101.32		N. (A)		(A)		0.83
	S.D.	6.17	25.03		D. 13.			S.D.		66,96		N. (B)		(B)		· 0.12
	(H)	6.07	24.61		(a) 13.4			(h)		65.83	<u> </u>					
	DRR.		0.21	- cor		0.02		CORR.		0.57	1					
CON		(A)	25, 11	CON.	-	7.0		IN. (A)	(A)	-52.99	1					
CON.		(B)	0,84	CON.				N. (B)	(B)	2.48						

Table 20. CORRELATION between - Yabis and Dier Alla (Dry season)

DATE	Ca	Ca	DATE	Иg	Нg	DATE	Na	Ha	DATE	Collig/Naik	Cardg/NarK
2 7 74	53.8	62	2 7 74	30.66	42.31	2 7 14	62. l	97.75	2 7 74	1,27	0.98
23 9 78	. 43.28	118.62		28. 21		23 9 78		224.15			0.66
13 9 82						13 9 82		:-			
2 6 84				23. 4 28. 44		2 6 84 11 7 84			11 7 84 2 8 84		0.92 0.97
111 7 84					10.8			. 133.4 .:: 85.1	2 8 84 Total		4.57
	308.79				204.16			699,06			0.91
HEAN		75.99		-41.31	34.03		73.97	116.51	S.D.	0.41	0.14
S.D.					15.42			56.57		0.36	0.14
(a) Corr.	4.54	19,49 -0,85		21.26	14.08 0.78	1	1.32	51.64 0.58	,	(A)	0.67 0.59
CON. (A)	· (A)	262.83		(A)	55.51		· (A)	บ. 58 - 187. 51	CON. (A)	(B)	0.25
CON. (B)	(8)	-3.63		(B)	-0.52		(8)	4.11	V.7 (D)		

Table 21. CORRELATION between - Yabis and Dier Alla (Rain season)

	DATE	Ca	Cn	DATE	ng	หล	DATE	Na	No	DATE	Ca+Mg/Na+K	Cathg/NetK
15	2 75	38.4	57.2	15 2 75	21.03	37.33	15 2 75	51.75	111.55	15 2 75	1,09	
27	4.75	52.4	63.4	27 4 75	26.99	31.49	27 4 75	51.75		27 4 75		
22		52	68	22 5 75		42.56			124.2			
30	3 75	40	53	30 3 75	21.88	31.61	30 3 75		78.2			
10.	4 75	52	70	10 4 75	27.23	. 38. 18	10 : 4 75	+63,25		10 4 75		
18.	11.75	51.6	74.8				18 11 75			18 11 75		
26:	1 75	17.2	58	26 1 75	27.23	31.61	26 :1 75	63.25	82.8			
27	11 76	46.89	56.11	27:11:76			27:11.76			27 11 76		
4	4 76	43.28	50.9	4 4 76	22.37	31.12	4 4 76	65.52	74.32			
16	2 76	32.86	48.09	16 2 76	14.59	.53.59	16 2 76	-45.98	71.26	16 2 76		
. 8	10.78	46.49	76, 55	8 10 78	25.77	51.55	8 10 78	79,31	163, 23	8 10 78		
. 1	5 79	53.5	146.29	1 5 79	29.91	74.29	1 5 79	78.16	291.97	1 5 79		
31	3 79	47.29	55.51	31 3 79	28.08	33.07	31 3 79	72.4	97.7	31 3 79		
13	2 79	45.09	45.09	13 2 79	21.23	26.99	13 2 79	75.86	105.75	13 2 79	0.83	
1	12 79	36.07	58.71	1 12 79	0.24	: 15.44	1 12 79	33.34	59.77	1 12 79		
- [10 79	43.09	127.65	1 10 79	30.04	79.04	.L 10 79	74.72	312.66	1 10 79	0,91	
20	1 80	51.91	36.67	20 1 80	21.77	13.98	20 1 80	20,69	45.98	20 1 80		
17	3 81	48.69	49.29	17 3 81	18.96	18.24	17 3 81	46.44	18.5	17 3 81	1.33	
23	1 83		52.91	23 1 83	16.54	17.02	23 183	59.77	43.68	23 1 83	1.01	
23	1 83	18.9	52.91			17.02	23. 1 83	45.7	43.68	23 1 83	1.38	1.47
4	4 83		48.1			19.21		52.88	52.88	25 3 84	0.81	
4	4.83					19.21	4 4 83	55.18	52.88	TOTAL	23.70	20.67
22	5 84	50.06	47.2			25.92	22 5 84	66.07	71.3	MEAN	1.13	
25	3 84	32.86	36.67	25 3 84	13.62	12.88	25 3 84	∴45.98	34.48	S.D.	0.46	
	TOTAL	1190.66	1481.15	TOTAL	530, 19	783.95	TOTAL	1422.813	2340, 45	(11)	0.45	0.24
İ	HEAR					32.66				CORR.		0.18
	5, 0.		25.47		6.48			15.38	69.87	CON. (A)		
	(8)					17.10		15.06	68.40	CON. (B)	(R)	0.10
	CORR.		0.28			0.54			0.57			
C	ON. (A)	(A)	7.14			0.41	CON. (A)	. (A)	-56.61		: .	1
	ON. (B)		1.19			1.46	CON. (B)	(B)	2.60]		

Table 22. CORRELATION between — Yabis and Dier Alla (Whole season)

	1.0							100					1						
	DATE	1.1	S	t.D.S		DATE	; CI	Ci		DATE	S04	S04	DATE	N114	NHA		DATE	K	K
	7 74		12	704	,	7 74	94.07	168 62	,	7 74	59.52	111.84	26 1 75	0.362	0.208	2	7 74	4.29	8.19
2	7 74		74	576		1 75		114.31		1 75	57.6	81.6		0.05	0.05		1 75	3.9	5.07
26 15	2 75		77	704		2 75		197.38		2 75	31.68	55,68		0.88	0.71		2 75	2.73	7.8
30	3.75		96			3 75		115.37		3 75	43.2	86.4		0.18	0.21		3 75	2.73	6.24
10	4:75		86			4 75		153.36		4 75		117.12			7.05		4 75	4.68	7.8
27	4.75		28	659		4 75		132.41		4 75			16 2 76	0.05	0.1	27	4 75	4.68	6.24
22	5 75		06	806		5 75				5 75		129.6		0.49	0.40	22	5 75	5.46	11.7
	11 75		31	659		11 75		137.03		11 75	59.04	126.70	27 11 76	4.8	0.48	18	11.75	5.46	8.2
16	2 76		14	486		2 76					42.27	75.88	2 8 84	1	1	16	2 76	3.91	6.64
4	4 76		12	544	177	4 76		109.92	4	4 76	62.43	81.65	TOTAL	9.95	10.21	4	4 76	5.47	
	11 76		86			11 76		117.73			83.68	107.59	MEAN	1.11	1.13	27	11 76	5.86	7.03
13	2 79		80		13			125.88		2.79	36.94	67.24		1.53	2.24			4.3	7.42
31	3 79		86		31		92.19	127.65	31	3 79		98.46		1.45	2.11	31	3 79	5.08	8.21
	12 79		59	125	1	12 79	40.78	88.65	1	12 79		81.65			0.29		12 79	3.52	10.16
20	1 80	3	42	319	20.	1 80	36.88	51.06	20	1 80		21.13		. (A)	0.65		1 80	∖ 3.91	3, 91
17	3 81	4	09	409	17	3 81	62.05	62.05	17.	3 81		24.49		(B)	0.43		. 3 81	4.3	3.52
13	9 82	Э	33	588	13	9 82	88.65	117.02	[13	9,85		83.57				113	9 82	3.91	7.82
23	1 83	. 3	58	358		1 83		64.54		1 83	48.51					23	1 83	3.91	3.91
23	1 83		84	358	23	1 83				1.83						23	1 83	19.5	3.91
4	4 83		03	400		4 83				4 83						25		11.73	11.73
4	4 83		93	400		4 83				4 83		18.25				1	7 84	3.9	
25	3 84		20	281		3 84		51.06		3 84	38.42	36.98 55.2				2:			3.9
22	5 84		99		22	5 84				5 84	48			• .		١		101.54	
2	6 84		20	531		6 84		90.3		6 84		68.64 171.36				1	HEAN	4.62	2.56
11	7 84		18	921		7.84		231.15		7 84						1	S.D. (ዘ)	1.75	2.50
	8 84		12	531		8 84			1 -	8 84	38.4 1376.18					1	CORR.	1.10	0.45
· · ·	TOTAL			14206			1905.47			TOTAL	52.93	76 72		1.12			IK. (A):	(A)	4 2
	HEAN		56			HEAN				nnaa e o	27.04	20.10					m. (a).	(B)	0.63
	S.D.		13			\$.B.					26.51						, s. (D)		
	(H)	1	Į O			(l)		46.75 0.56		CORR	20.31	0.41							
	CORR.			0.47		CORR. N. (A)		u.ao 4.15		ON. (A)	(A)								
	N. (A)			249.60 n de	ł .	N. (B)		1.48		ON. (A)	(B)	0.58						4 2	
CC	N. (B)	!	(8)	0.65	"	u: (b)	(8)	1.40	"	UM. (D)	(0)	0.00	j		-	•			

Table 23. CORRELATION between - Yabis and Dier Alla (Dry season)

Lac		r.D.S T.D.S	DATE	C1	Cl	DATE SOA SOA		
Co	7 74 9 82 6 84 7 84 8 84 TOTAL HEAN S.D. (H) CORR.	\$12 704 633 588 820 531 512 531 2995 3275 599 655 134 165 120 147 -0.\$1 (A)************************************	2 7 74 13 9 82 2 6 84 11 7 84 2 8 84 TOTAL HEAN S.D. (H) CORN.	88.65 94.5 96.25 89.6 463.07 92.61 3.30 2.96	90.3 231.15 106.05 713.14 142.63 57.54	S.D. 44.40 47.79 (n) 39.72 42.74 CORR0.02 CON.(A) (A) 99.00	HEAN 1.00 1.00 S.D. 0.00 0.00 (II) 0.00 0.00 CORR. 0.00 CON, (A) (A) 1.00 CON, (B) (B) 0.00	13 9 82 3.94 7.82 11 7 84 3.9 11.7 2 8 84 3.9 3.9 TOTAL 16.00 31.61 HEAN 4.00 7.90

Table 24. CORRELATION between - Yabis and Dier Alla (Rain season)

15 2 75 377 704 75 528 659 27 4 75 89.46 132.41 27 4 75 79.56 198.48 27 4 75 0.18 0.21 27 4 75 5.46 122 5 75 506 806 22 5 75 88.75 198.8 22 5 75 56.64 129.6 22 5 75 506 806 22 5 75 88.75 198.8 22 5 75 56.64 129.6 22 5 75 0.362 0.208 10 4 75 5.46 130 3 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 4.68 8 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 12 17 17 18 18 11 75 18 11	гаон	e 2	4. ·	JUKN	اند. -	MIIO	M OCEW	CON 1	aois aire	. 10101								
15 2 75 377 704 75 528 659 27 4 75 89.46 132.41 27 4 75 79.56 198.48 27 4 75 0.18 0.21 27 4 75 5.46 122 5 75 506 806 22 5 75 88.75 198.8 22 5 75 56.64 129.6 22 5 75 506 806 22 5 75 88.75 198.8 22 5 75 56.64 129.6 22 5 75 0.362 0.208 10 4 75 5.46 130 3 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 4.68 8 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 12 17 17 18 18 11 75 18 11	: 1)ATE	T.O.S	1.0.5		DATE	CI	CI	DATE	S04	S04	DATE	MII4	NII4		DATE	X	K
27 4 75 528 659 27 4 75 89.46 132.41 27 4 75 70.56 108.48 27 4 75 0.18 0.21 21.4 4 75 4.88 22 5 75 506 806 22 5 75 506 806 22 5 75 88.75 108.8 22 5 75 56.64 129.6 22 5 75 2.14 7.05 22 5 75 5.66 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 4.68 18 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 546 18 11 75 516 18 11 75 75 76 76 76 76 76 76 76 76 76 76 76 76 76	15 9	2 75	377	704	15	2 75	57.15	197.38	15 2 75	31.68	55.68	15 2 75						7.8
22 5 75 506 806 22 5 75 88.75 198.8 25 5 75 56.64 129.6 22 5 75 2.14 7.05 22 5 75 3.40 30 3 75 396 569 30 3 75 57.15 115.37 30 3 75 43.2 86.4 30 3 75 0.88 0.71 30 3 75 2.73 6 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 4.68 11 75 531 669 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 26 1 75 474 576 26 1 75 80.58 114.31 26 1 75 57.6 81.6 4 4 76 0.49 0.40 26 1 75 3.9 5 27 (1 76 486 592 27 11 76 85.45 114.31 26 1 75 57.6 81.6 4 4 76 0.49 0.40 26 1 75 3.9 5 4 4 4 76 442 544 4 4 76 74.46 109.92 4 4 76 62.43 81.65 1.05 11.15 16 2 76 482 544 4 4 76 74.46 109.92 4 4 76 62.43 81.65 1.05 11.15 16 2 76 482 549 4 4 4 76 74.46 109.92 4 4 76 62.43 81.65 1.05 11.15 16 2 76 482 549 4 4 76 5.47 74 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18								132.41	27 4 75	70.55	108.48	27 4 75	0.18					6.24
30 3 75 396 569 30 3 75 57.15 115.37 30 3 75 43.2 86.4 30 3 75 0.88 0.71 30 3 75 4.58 10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 5.66 18 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 18 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 17 76 48 65 92 27 11 76 85.45 117.73 27 11 76 83.68 107.59 16 2 76 0.49 0.40 26 1 75 3.9 5 16 2 76 48								198.8	22 5 75	56.64	129.6	22 5 75	2.14					11.7
10 4 75 486 717 10 4 75 74.55 153.36 10 4 75 59.52 117.12 26 1 75 0.362 0.208 10 4 75 4.66 18 11 75 531 659 18 11 75 92.3 137.03 18 11 75 59.04 126.70 27 11 76 4.8 0.48 18 11 75 5.46 26 1 75 74 576 26 1 75 80.58 114.31 26 1 75 57.6 81.6 4 4 76 0.49 0.40 26 1 75 3.9 57 17 17 6 88.65 592 27 11 76 85.45 117.73 27 11 76 83.68 107.59 16 2 76 0.05 0.1 27 11 76 5.86 74 4 76 442 544 4 76 74.46 109.92 4 4 76 62.43 81.65 107141. 8.95 9.21 4 4 76 5.47 76 16 2 76 314 486 16 2 76 48.58 91.84 16 2 76 42.27 75.88 164 1.12 1.15 16 2 76 3.91 17 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18								115.37	30 3 75	43.2	86.4	30 3 75						6.24
18 11 75		-					74.55	153.36	10 4:75	59.52	117.12	26 1 75	0.362					7.8
26 1 75							92.3	137,03	18 11 75	59.04	126.70	27 11 76	. 4.8				- 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1	8.2
27 11 76	-											4 4 76	0.49					5.07
4 4 76 442 544 4 4 76 74.46 109.92 4 4 76 62.43 81.65 TOTAL 8.95 9.21 4 4 76 5.47 16 2 76 314 486 16 2 76 48.58 91.84 16 2 76 42.27 75.88 HEAN 1.12 1.15 16 2 76 3.91 6 31 3 79 486 582 31 3 79 92.19 127.65 31 3 79 59.97 98.46 S.D. 1.64 2.39 31 3 79 5.08 8 13 2 79 480 595 13 2 79 83.33 125.88 13 2 79 36.94 67.24 (tt) 1.53 2.24 13 2 79 48.3 12 79 36.94 67.24 (tt) 1.53 2.24 13 2 79 4.3 7 12 79 259 425 1 12 79 40.78 88.65 1 12 79 19.21 81.65 CORR. 0.29 1 12 79 3.52 11 12 79 19.21 18 1.65 10 10.68 10.60 1.60 1.60 1.60 1.60 1.60 1.60 1.6	-							117,73	27 11 76	83.68	107.59	16 2 76						
16 2 76 314 486 16 2 76 48.58 91.84 16 2 76 42.27 75.88 MEAN 1.12 1.15 16 2 76 3.91 37 9 486 582 31 3 79 92.19 127.65 31 3 79 59.07 98.46 5.D. 1.64 2.39 31 3 79 5.08 8 13 2 79 480 595 13 2 79 83.33 125.88 13 2 79 36.94 67.24 (M) 1.53 2.24 11 2 79 259 425 1 12 79 40.78 88.65 1 12 79 19.21 81.65 CORR. 0.70 CORR. 0.70 17 3 81 62.05 62.05 17 3 81 17.29 24.49 17 3 81 409 409 17 3 81 62.05 62.05 17 3 81 17.29 24.49 17 3 81 409 409 17 3 81 62.05 62.05 17 3 81 17.29 24.49 17 3 81 409 409 17 3 81 62.05 62.05 17 3 81 17.29 24.49 18.25 18.3 384 358 23 1 83 66.31 64.54 23 1 83 48.51 59.56 18.25 18.3 393 400 4 4 83 65.6 63.83 4 4 83 48.51 59.56 18.25 18.3 49.3 49.3 49.3 49.3 49.3 49.3 49.3 49							74.46	100.92	4 4 76	62.43	81.65	TOTAL.			100			7.82
31 3 79 486 582 31 3 79 92.19 127.65 31 3 79 59.97 98.46 S.D. 1.64 2.39 31 3 79 5.88 61 12 79 480 595 13 2 79 83.33 125.88 13 2 79 36.94 67.24 (t) 1.53 2.24 13 2 79 4.3 7 1 12 79 259 425 1 12 79 40.78 88.65 1 12 79 19.21 81.65 CORR. 0.67 20 1 80 3.91 27 12 7 19 19.21 81.65 COR. (a) (b) 1.53 2.24 13 2 79 4.3 7 1 12 7 19 19.21 81.65 COR. (a) (c) 67 20 1 80 3.91 3 1 83 81 409 409 17 3 81 62.05 62.05 17 3 81 17.29 24.49 COR. (b) (c) 68 0.43 17 3 81 4.3 52 1 1 83 358 23 1 83 66.31 64.54 23 1 83 47.55 59.56 1 12 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					1 -		48.58	91.84	16 : 2 76	42.27								
13 2 79 480 595 13 2 79 83.33 125.88 13 2 79 36.94 67.24 (d) 1.53 2.24 13 2 79 3.52 11 12 79 259 425 1 12 79 40.78 88.65 1 12 79 19.21 81.65 CORR. 0.29 1 12 79 3.52 11 12					1 -	3 79		127.65	31 3 79	59.97	98.46							8.21
1 12 79 259 425 1 12 79 40.78 88.65 1 12 79 19.21 81.65 CORR 0.29 1 12 79 3.32 1 17 3 81 409 409 17 3 81 62.05 62.05 17 3 81 17.29 24.49 CON. (A) (A) (A) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B		, , -			1 -	2 79	83.33	125.88	13 2 79	36.94	67.24		1.53					7.42
28		_			1	12 79	40.78						The Sale		1 / 3		the factor was a	
23 1 83 384 358 23 1 83 66.31 64.54 23 1 83 48.51 59.56 23 1 83 358 23 1 83 56.38 64.54 23 1 83 48.51 59.56 24 4 83 393 406 4 4 83 65.6 63.83 4 4 83 44.67 18.25 25 584 499 492 22 5 84 78.05 83.65 22 5 84 88 55.2 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 26 10741 8873 10931 10741 1442.40 2214.89 10741 989.681511.47 27 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8					50	1 89	36.88											
23 1 83 384 358 23 1 83 66.31 64.54 23 1 83 48.51 59.56 23 84 11.73 19 4 4 83 393 406 4 4 83 65.6 63.83 4 4 83 44.67 18.25 25 84 499 492 22 5 84 78.05 83.65 22 5 84 48 55.2 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 3.01 1.01 1.8873 10931 TOTAL 842.40 2214.89 TOTAL 8873 10931 TOTAL 842.40 2214.89 TOTAL 898.681511.47 (n) 1.90 3 5.0. 77 144 (s.D. 17.00 43.59 (n) 75 141 (n) 16.59 42.54 (n) 17.88 34.42 (corr. 0.70 corr. 0.70 corr. 0.54 corr. 0.60 corr. 0.70 corr. 0.60 cor	17 3	3 81	409	409	17	3 81	62.05			17.29	24.49	CON. (B)	(B)	0.43				
23 1 83 358 358 22 1 83 50.38 64.50 £2 1 83 44.67 18.25 25 3 84 11.73 11 4 4 83 393 406 4 4 83 65.6 63.83 4 4 83 44.67 18.25 22 5.84 493 40.0 4 4 83 61.7 63.83 4 4 83 57.64 18.25 22 5.84 499 492 22 5.84 78.05 83.65 22 5.84 48 55.2 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 36.00 10.0 10.0 10.0 10.0 10.0 10.0 10.0	23	1 83	384	358	53	1 83	66.31			47.55				· · · · · · · · · · · · · · · · · · ·	1			
4 4 83 393 400 4 4 83 61.7 63.83 4 4 83 57.64 18.25 22 5.84 499 492 22 5.84 78.05 83.65 22 5.84 48 55.2 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 101AL 8873 10931	23	1 83	358	358	23	1 83	56.38						a, .		, -			
4 4 83 403 400 4 4 83 61, 1 83, 65 22 5 84 48 55.2 MEAN 4,75 25 3 84 320 281 25 3 84 59.7 51.06 25 3 84 38.42 36.98 S.D. 1701AL 8873 10931 TOTAL 1442.40 2214.89 TOTAL 989.681511.47 MEAN 423 521 MEAN 68.69 105.47 MEAN 47.13 71.97 CORR. S.D. 17 144 S.D. 17.00 43.59 S.D. 18.32 35.27 CON. (A) 75 141 (H) 16.59 42.54 (H) 17.88 34.42 CORR. 0.70 CORR. 0.54 CORR. 0.60 (G)	4	4 83	393	400	4	4 83	65.6							• •	25			
22 5 84 497 492 122 5 84 78.95 85.05 1.06 25 3 84 38.42 36.98 25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 (n) 1.90 1.90 1.90 1.90 1.90 1.90 1.90 1.90	4	4 83	403	400	4	4.83	61.7						tyr i d					
25 3 84 320 281 25 3 84 50.7 51.06 25 3 84 38.42 36.98 TOTAL 8873 10931 TOTAL 1442.40 2214.89 TOTAL 989.681511.47 MEAN 423 521 MEAN 68.69 105.47 MEAN 47.13 71.97 S.D. 77 144 S.D. 17.00 43.59 S.D. 18.32 35.27 (M) 75 141 (M) 16.59 42.54 (M) 17.88 34.42 (CON.(A) CON.(B) (B) (CON.(A) (A) 2.4.67 (CON.(A) (A) 10.68 (CON.(A) (A) 17.30	22 3	5.84	499	492	22	5 84	78.05	83,65	22 5 84				1		1.			
HEAN 423 521 HEAN 68.69 105.47 HEAN 47.13 71.97 CORR. S.D. 77 144 S.D. 17.00 43.59 S.D. 18.32 35.27 CON. (A)		3 84	320	281	25	3 84	50.7						'	1	1.5			
S.D. 77 144 S.D. 17.00 43.59 S.D. 18.32 35.27 (M) 75 141 (H) 16.59 42.54 (M) 17.88 34.42 (CON.(A) (A) (A) (CON.(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	- 10	OTAL.	8873	10931		TOTAL.	1442.40	2214.89						the second			1.90	
(n) 75 141 (n) 16.59 42.54 (n) 17.88 34.42 (corr, 0.70 corr, 0.54 corr, 0.60 (n) 17.88	1	HEAN	423	521	1	HEAN	68.69	105.47									(4)	0.55
CORR. 0.70 CORR. 0.54 CORR. 0.60 CON.(A) (A) -24.67 CON.(A) (A) 10.68 CON.(A) (A) 17.30		S.D.	77	144		S.D.	17.00	43.59				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Carrier Contract	100				
CON. (A) (A) -24.67 CON. (A) (A) 10.68 CON. (A) (A) 17.30		(N)	· 75	141	1.	(n)	16.59	42.54		17.88					U	JN . (8)	(B)	.0.11
toget the ten bit of and the	C	ORR.		0.70	1	CORR,	11							1.0				
	CON.	. (A)	(A)		3	ON. (A)								1111			Sec.	
CON. (B) (B) 1.29 CON. (B) (B) 1.38 CON. (B) (B) 1.16 CON. (B)	CON.	, (B)	(B)	1.29	C	ON. (B)	(B)	1.38	CON. (B)	(B)	1.16		Salar Salar	·	I,	1.10		- · · · · .

Table 25. CORRELATION between - Yabis and Dier Alla (Whole season)

۴-		-				ونوي تعنورون						ر ایال ایال در br>در این
	DA FP	Cn	Ca	DATE	Яg	Иg	DATE	Na	Na	DATE	Callg/NalK	Ca+Mg/Na+K
1	2 7 74	53.8	62	2 7 74	30.66	42,31	2 7 74	62.1	97.75	2 7 74	1.27	0.98
. [2	6 75			26 1 75		31.61					i. ii	
	5 2 75	38.4	57.2	15 2 75	21.93	37.33	15 2 75				1,09	0.79
13	0 3:75	40		30 3 75		131761					1.14	
Ш	0 4 75	52		10 4 75	27, 23						1.17	0.99
12	7 : 4 75	52.4				31,49						0.97
12	2 5 75	52	68	22 5 75	27.22	42.56					1.05	
11	8 11 75	51.6		18 11 75	24.7		18 11 75				0.86	
] (6 2 76	32.86	48,09	16 2 76	14.59	53.59	16 2 76				0.95	
	4 4 76	13.28	50.9	1 1 76	22, 37		4 4 76	65.52			8.92	
2	7 11 76	46.89	56.11	27 11 76	24.56	30.4	27 11 76		89.66		0.94	
Į1	3 2 79	45.09	45.09	13 2 79	21.23	26,99	13 2 79	75.80			0.83	
- 3	1: 3:79	47.29			28.08	33,07	31 3 79	72.4		31 3 79	0.97	
	1 12 79	36.07	58.71	1 12 79	0.24	15,44	1 12 79	33.34	59,77	1 12 79	0.99	1.06
	0 180	51.91		20 1 80		13.98	20 1 80	20.69	45,98	20 1 80	3.00	1.02
	7 3 81	48:69			18.96	18.24	17 3 81	46.44	48.5	17 3 81	1.33	1.30
	3 9 82	56.11			53.5	27.24	13 9 82	71.27	82,76	13 9 82	1.46	1.04
	3 1 83	48.9			19.7	17.02		45.7	43.68	23 1 83	1.38	1.47
	3 (83	47.9		23 1 83	16.54	17.02	23 1 83	59.77	43.68	23 1 83	1.01	1.47
- 1 -	4 4 83	46.49		1	20.67	19.21		55.18	52.88	25 3 84	0.81	1.07
	4 4 83	45.69	48.1	4 4 83		19,21			52.88	11 7 84	0.98	0.92
	5 3 81	32.86				12.88		45.98	34.48	2 8 84	1.84	0.97
12		59.96	47.2		25.92	25.92	22 5 84	66.87	71.3	TOTAL.	26.51	22.64
	2 6 84	53	51	2 6 84	23.4	26.4		80.5	75.9	HEAN	1.21	1.03
•	1 7 84	47.6	89.6			43.91			133.4	S.D.	0.47	0.20
1	2 8 84	- 55	75.4	2 8 84		10.8		71.3	85,1	(H)	0.46	0.20
1		1223.09		,		729.73	TOTAL	1549.39	2047.50	CORR.	200	0.11
T.	MEAN	47.04	56.77		25.54	28.07		-59.59	78.75	CON. (A)	. (A)	0.98
1	S.D.	6.43	12.12		14.71			14.69	25.95	CON. (B)	. (B)	0.04
1	(H)	6.30	11.88		14.42	10.72	(8)	14.40	25.45			
ı	CORR.		0.42			[-0.08]		:	0.60		4	
	COR. (A)	(A)	13.14		(a)	29.60		(1)				
1	CON. (B)	(8)	0.80	CON (B)	(B)	-0.06	CON (R)	.(B).	1.06			ļ
,												

Table 26. CORRELATION between - Yabis and Dier Alla (Dry season)

				<u> </u>	
	DATE Ca Ca	DATE Hg Hg	DATE No No	DATE CalleyNarK	Carlle/Hark
1	2 7 74 53.8 62	2 7 74 30.66 42.31	2 7 74 62.1 97.75	2 7 74 1.27	0.98
1	13 9 82 56.11 67.33	13 9 82 53.5 27.24	13 9 82 71.27 82.76	13 9 82 1.46	1.04
1	2 6 84 53 51	2 6 84 23.4 26.4	2 6 84 80.5 75.9	11 7 84 0.98	0.92
1	11 7 84 47.6 89.6	11 7 84 28.44 43.91	(1 7 84 73.6 133.4	2 8 84 1.84	8.97
į		2 8 84 83.64 10.8			3.91
ł	TOTAL 265.51 345.33	TOTAL 219.64 150.66	TOTAL 358.77 474,91		0.98
١	MEAN 53.10 69.07	MEAN 43.93 30.13	MEAN 71.75 94.98	S.D. 0.36	11.00
Į	S.D. 3.30 14.50	S.D. 25,03 13.55	S.D. 6.59 22.88		0.00
1	(H) 2.95 12.97	(M) 22.39 12.12	(M) 5.89 20.47		0.00
ı	CORR0.57	CORR0.81	COR80.19	CON. (A) (A)	0.91
ĺ	CON. (A) (A) 202.88	[CON. (A) (A) 49.46	CON. (A) (A) 141.62	CON, (B) (B)	0.05
١	CON. (B) (B) -2.52	CON. (B) (B) -0.44	CON. (B) (B) -0.65		
	the contract of the contract o	, ,			and the second second

Table 27. CORRELATION between - Yabis and Dier Alla (Rain season)

DATE	Ca	Ca	DATE	Иg	Hg	DATE	Na	Na	DATE	Callg/Naik	Cathg/Natk
				01.02	37,33	15 2 75	51.75	111.55	15 2 75		
15 2 75	38.4	57.2		21.03		27 4 75	51.75	92	27 4 75		
27 4:75	52.4	63.4	27 4 75	26, 99	42.56		70.15	124.2	22 5 75		
22 5 75	52	68		27.22 21.88	31.61	30 3 75	51.75	78.2			
30 3,75	40		30 3 75		38.18		63.25	101.2			
10 4 75	52		10 4 75	27.23	32.2		82.8	4			
18 11 75	51.6	74.8	18 11 75	24.7		26 1 75	63.25	82.8			
26 75	47.2		26 1 75	27.23	31.61 30.4		70.11	89,66			
27 11 76	46.89		27 11 76	24.56		4 4 76	65.52				
4:476	43.28	50.9		.22.37	31,12 53.59		45.98	71.26	[6] 2 76		_ (
16 2 76	32.86	48, 09		14.59	33.07		1 2 2 2 1 1 2				
31 3 79	47.29		31 3 79	28.08	26,99		75.86			0.83	
13 2 79	45.09	15.09		21.23		1 12 79	33.34	59,77	1 12 79	0.99	
1 12 79	36.07	58, 71	1 12 79	0.24	15.44 13.98		20.69		20 1 80	3.00	
50 1 80	51.91	36, 67		21.77	18.24	-	46.44	48.5		1.33	
17 3 81	48.69	49.29		18.96	17.02		59.77	43,68		1.01	
23 1 83	47.9	52.91		16.54 19.7	17.02		45.7	43.68			
23 1 83	48.9	52,91		19.94	19.21	4 4 83	52.88				
4 4 83	45.69	48.4	4 4 83		19.21	4 4 83	55.18				
4 4 83	46:49	48.1	4 4 83	20.67			66.07			1.10	
22 5 84	50.06	47.2		25.92 13.62	12.88	100	45.98				
25 3 84	32.86	36.67		444.47				1572.59		0.48	
TOTAL.				4.2	27.57	HEAN	56.70				0.09
	45.60	53.84					14.67) (A)	
S.D.	6.17	9.73	1	6.36	10.30	1	14.32			(B)) 0.05
(ii)	6.02	9.50		6.21	0:41	1	14.00	0.62			
CORR.		0.39		(A)	13.17		: (A)			1 A 1 A	¹⁷ 1
CON. (A)	(A)	25.57		(11)	0,68		(B)				1.1
CON. (B)	(B)	0.62	CON. (R)	(11)	0.00		,,,,		J	**	

Table 28. CORRELATION between — Yabis and Dier Alla (Whole season)

- 1	401	v 20							100				
Γ		DATE (C1/S04	C1/S04	DATE	C03	03	DATE	псоз	IIC03	DATE	х03	NO3
-	2	7 74	1.58	1.51	2 1 74	6	9	2 7 74	229.36	213.5	2 7 74 26 1 75		12.26 11.82
- 1:	26	1 75	1.40	1.40		5.4	- 7 - 7	26 1 75	237.29	228.14 221.43			11.52
	15	2 75	1.80	3.54	15 2 75	9.6		15 2 75	189.1 190.32	197.03			8.59
	31)	3 75	1.32		30 3 75	11.1		30 3 75 10 4 75	239.12	228.14		10.63	
- 1	l U	4 75	1.25			. 9	15.3	-	207.4	229.36	~ -	14.04	14.49
- [:		4 75	1.27	1.22		17.1	7.7.31	27 4 75 22 5 75	254.98	223.26		12.49	10.19
- [:		5 75	1.57			9.6	~ 1	18 11 75	226.9	208.6		14.53	
Ì		1 75	1.56			9.47	9.47	16 2 76	162.29		16 2 76	17.53	10.63
1		2 76	1.15		13 2 79	12.83	15.27	4 4 76	202:55	209.26	4 4 76	10.63	18.27
-1		4 76	1.19			15.88	4.88 9.78		198.89	231.84		11.6	11.07
	27 J		1.02			10.99	3.67		224.51		13 2 79	11.95	12.18
		2 79	2.26			5.8	-	31 3 79	111.67		31 3 79	11.07	9.74
- 1	31	3 79	1.56		1 :	5.19	3.67 6.11	1 12 79		158.63	1 12 79	17.2	17.28
		2.79	2.12			3.67	15		222.08	160.46	20 1 80	33.8	21.26
	20	1 80	6.40			3.6	15.6	17 3 81	200.72				22.24
- 1	17	3 81	3.59		1	16.5	13.2		272.1	263.56		8.8	9.26
	13	9 82	0.58		1	2.4	4.5		199.5	161.68	23 1 83	13.1	14.13
•	23	1 83 1 83	1.16 1.39			165.17		23 1 83	189,74	161.68	23 1 83	12.1	14.13
- 1	23	4.83	1.07		1	9.18	9.97	4 4 83	198.89	208.65	4 4 83	10.9	34.19
ŀ	1	4 83	1.4			4.50	4.24	4 4 83	204.99	208.65	4 4 83	10	34.19
ļ	25	3 84	1.32			4.38	4.12		142.76	151.3	25 3 84	7.7	
- 1	22	5 84	1.6			4.00	0.32	1	230.58	217.77	22 5 84	- 11	9.5
- 1	2	6 81	1.3			(A)	7.22		222.65	206.18	2 6 84	10.8	
ı	ıί	.7 84	1.5			(8)	0.30		203.13	237.7			
1	2	8 84	2.3					2 8 84	264.74	262.3			
1		TOTAL.	44.8					TOTAL					387.21
l		HEAR	1.7					MEAN	206.22	210.27			3 14.89
ı		S.D.	ii			1		S.D.	37.70	30.05			7.04
	1	(9)	1.0					(n)	36.97	29.47			3 6 90
	1	CORR.		0.3				CORR.		0.49			0.26
- 1		N. (A)	· (A					CON. (A)	(A)	129.84			10.75
1 -		N. (B)	(B				*	CON, (B)	, (B)	0.39	CON. (B)	(B)	0.33
				· · · · · · · · · · · · · · · · · · ·									

Table 29. CORRELATION between - Yabis and Dier Alla (Dry season)

1	DATE	C1/S04	C1/S04	BATE	- C03	C03		DATE	lic03	IIC03	DATE	КО3	NO3
2	7.74			2 7 74	6	~;		7 74	229.36		2 : 7 .74		12.26
$\frac{13}{2}$	9 82		1.40		3.6 16.5			9,82 6,84			13 9 82 2 6 84		9.26
	7.84	1.51	1.35	2 8 84	2.4	4.5	П	7 81.	203.13	237.7	11 7 84	9.2	23.2
2	- 18 84 - TOTAL	200 100	2.21 7.79	' TOTAL HEAN	28.50 7.13	42.30 10.58		, .	264.74 1191.98	262.3 1183.24		8.3 43.73	10 64.32
. :	MEAN		1.56		6.43	4.88		MEAN	238.40	236.65	MEAN	8.75	12.86
	ं S.D. (११)	4.0-	0.37	CORR.	5.57	4.23 0.40		S.D. (11)	29.17 26.09	26, 68 23, 86		1.35	5.27
	CORR, ON. (A)		0.78 0.88	CON. (A)	· (4)	8.44		CORR.	: 663	0.72		. 745	0.01 12.51
	us. (a) ON. (B)		0.46	. rour (B)	(11)	0.30		IN . (A) IN . (B)	(A) (B)	79.31 0.66		•	0.04

Table 30. CORRELATION between - Yabis and Dier Alla (Rain season)

	77 4 7	100					1000				
DATE	C1/\$04	CIAS04	DATE	C03	C03	DATE	IICO3	HC03	DATE	NO3	NO3
15 2 75	1.80	2.54	15 2 75	9.6	7.2	15 2 75	189.1	221.43	15 2 75	11.6	11.52
	1.27	1.22		17.1	11.4		207.4	229.36	27 4 75	14.04	14.49
	1.57	1.53		11.1	10.2		254.98	223.26	22 5 75	12.49	10.19
22 5 75	1.32	1.34		9	15.3	10 m	190.32	197.03	30 3 75	7.53	8.59
30 3 75 10 4 75			18 11 75	9.6	14.4		239.12	228.14	10 4 75	10.63	11.51
• • • • • • • • • • • • • • • • • • • •				5.4	10.8	1	226.9	208.6	18 11 75	14.53	16.39
			4 4 76	9.47	9.47		237.29	228.14	26 1 75	9.61	11.82
26 1 75	1.02	1.09		15.88	4.88		198.89	231.84	27:11 76	11.6	11.07
27 11 76				12.83			202,55	209.26	4 4 76	10.63	18.27
4 4 76			17 3 81	10.99			162.29	215.37	16 2.76	17.53	10.63
16 2 76		***	150 - 1 22	5.19)	111.67	234.27	31 3 79	11.07	9.7
31 3 79				5.8			224.51	225.73	13 2 79	11.95	12.18
13 2 79				3,67	6.11		135.44	158.63	1 12 79	17.2	17.2
1 12 79	2.12			11.04	15		222.08	160.46	20 1 80	33.8	21 20
20 1 80				136.67		100	200.72	202.55	17: 3.81	23.9	22.20
17 3 81	3.59		1	9.76			189.74	161.68	23 1 83	12.1	14.13
23 1 83			1	3.91		1 - 1	199.5	161.68	23 1 83	13.1	14.13
23 1 83			L	3.77			204.99	208.65	4 4 83	. 10	34.1
4 4 83				3.11	0.33		198.89	208.65	4 4 83	10.9	34.1
4 4 83			11	(A)	6.29		230.58	217.77	22 5 84	П	9.
22 5 84				(B)		25 3 84	142.76	151.3	25 3 81	7.7	9.5
25 3 84			COR. (B)	(0)	0.00	TOTAL	4169.72	4283.80	TOTAL	282.91	-322.8
TOTAL			Γ			MEAN	198.56	203.99	MEAN	13.47	15.3
HEAR					- 1	S.D.	35.86	27.77	S.D.	5.90	7.3
S.D.						(8)	35.00	27.10	(N)	5.76	7.1
(H)				. :		CORR	4.7.	0.32	CORR.		0.2
CORR.		0.28				CON. (A)	(A)	154.35	CON. (A)	(A)	11.3
CON. (A)					:.	CON. (B)	(B)	0.25	CON. (B)	(B)	0.3
CON. (B)	(B)	0.20	1			3011. (8)			L		

Table 31. CORRELATION between - Magaren and Dier Alla (Whole season)

DATE	TUSILD TO	SILO DATE	KMn04 8	(UnO4	DATE	S04 S04	DATE	1. NII3	N113	DATE	, K	K	DATE	CI	CI
30 6 7	1 465	554 30 6 79	5.50	8,70	30 6 79	86.4 65.0			0.26		34.8	6.1 6.1	30 6 79 12 8 79	85.2 84.8	128.7 98.9
12 8 7		532 12 8 7			1 11 79	64.2 74.6	12 8 79	0.10	0.12 0.96	11 11 79 20 1 80	4.8	5.2	1 10 79	84.8	109.5
1 10 7		565 11 11 7		9,70	11 11 79 20 80	59.7 69.11 30.0 50.6	1 10 79 11 11 79	0.32	0.52	3 2 80	5.7	12.4	11 11 79	79.1	94.9
11 11 7		518 20 1 8 477 3 2 8		6,50 1,40	3 2 80	56.8 141.2	20 1 80	0.40	0.24	9 3 80	4.6	4,2	20 1 80	58.0	100.2
3 2 8		885 9 3 8		24.00	9 3 80	23.1 35.8	3 2 80	0.34	0.34	1 4 80	5.0	5.3	3 2 80	73.8	128.0
9 3 8		378 1 4 8		11.50	1 4 89	50,6 47.3	9 3 80	0.56	0.40	5 5 80	1.9	5.6	9 3 80	38,1	38.1
1 4 8		548 5 5 8		7.58	5 5 80	70.0 73.7	1 1 80		0.36	1 6 80	. 8	1.8	1 4 80	69.9 83.3	78.3 89.1
5 5 8	141	430 6 8	0 9.20 1	12.60	1 6 80	55.5 65.8	5 5 80	0.40	0.48	1 8 80	4.7	7.6	5 5 80 1 6 80	92, 2	88.7
1 68	503	486 1 8 8		8.14		64.2 116.9		0.20	0.20	1 9 80	14.7 5.0	5,9 5.8	8 7 80	97.4	132.2
8 7 8		571 L 9 B		9.90	1 8 80	69.5 73.6	8 7 80			15 10 80 11 11 80	5.3	5.2	1 8 80	86.1	99.9
1 8 8		633 24 12 8		3.30	1 9 80	75.3 69.9 70.0 76.5				24 12 80	6.3	6.3	1 9 80	88.8	101.8
1 9 8		604 7 1 8			15 10 80 11 11 30		15 10 80		0.20	7 1 81	6.8	10.8	15 10 80	88.3	93.6
15 10 8 11 11 8		506 8 2.8 625 10 3 8		8.06 15.44		60.5 58.8	11 11 80		0.20	8 2 81	6.0	6.5	11 11 80	104.4	95.7
24 12 8		311 12 4 8		9.52	7 1 81	52.6 26.4	7 1 81	0.72	1.88	18 3 81	6.4	8.9	7 1.81	69.6	25.5
7 18		238 17 5 8		6.79	8 2 81	35.4 28.8	8 2 81	0.24	0.26	12 4 81	6.2	4.8	8 2 81	67.0	127.0
8 2 8		344 1 8 8		2.50		12.8 42.0	10 3 81	0.24	0.16		6.0	5.2	12 4 81	83.3	85.1
10 38		400 28 9 8		7.011		48.2 49.4	1 8 81	0.06	0.06		. 18.0	20.0	[17 5 81	115.3	83.3
12 4 8	572	580 TOTA	. 234 84 25	59,77	17 5 81	95.9 86.0	TOTAL	5,17	8.18		10.0	8.5	8 81	106.5	142.0
17 58		678 NEA.		13.67	1 8 81	82.0 95.0	MEAN		0.43	TOTAL	121.6	140.2	28 9 81 TOTAL	110.0 1765.9	103.0 2043.5
1 88		499 S.D		4.51		1264.8 1430.2	S.D.	0.17	0.41	HEAN	6,1 3,2	7.0 3.8	MEAN	84.1	97.3
28 9 8		577 : (M		14.13	HEAN	60.2 68.1	(H)	0.17	0.40 8.71	S.D. (H)	3, 1	3.7	S.D.	18.0	28. 1
1014		1909 CORR		0.97	S.A. (H)	18.1 27.5 17.7 26.9	CORR.	(A)	0.05	CORR.		0.86	(H)	17.6	27.4
HEAL C D		518 CON. (A. 136 CON. (B		0.97	CORR	0.54	CON. (B)	(B)	1.76	(A) NOT	(A)	0,66	CORR	14.1	0.42
\$. p		133	/ (1)/	4.01	CON. (A)	(A) 19.341	COLL CITY			CON. (B)	(8)	1.04	CON. (A)	(4)	41.79
CORR		0.71		- 1	CON. (B)	(B) 0.81	1 12	4.4					CON. (B)	(8)	0.66
CON. (A		1. 13		,			111	7	. !		11:1	1		7 9	
CON. (B		n. 97									J 1		1		

Table 32. CORRELATION between - Magaren and Dier Alla (Dry season)

DATE	TOSTIO TOSTIO	DATE	KNn04 KNn04	DATE	S04 S04	DATE	NII3	зни	JIATE	R	K	DATE	CI	CI
36 6 79	465 554	30 6 79	5.50 8.70	39 6 79	86.4 65.D	30 6 79	0.10	0.26	12 8 79	4.8	6.1	30 6 79	85.2	128.7
12 8 79	11111	12 8 79	3.50 4.89		55.5 65.8		a. 10	8.12	1 6 80	1.8		12 8 79	84.8	98. 9
1 6 89	503 486		9.20 12.60		64.2 116.9			0.20	-, , , , , , , , , , , , , , , , , , ,	1.7	7.6		92.2	88.7
8 7 80 8 80	470 571 617 633		2.93 8.44 11.00 9.90	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				0.96 0.52			5.9	8 7 80 1 8 80	97.4 86.1	132.2 99.9
1 9 80	606 604		32.19 44.44				17.3	0.14			5.4		88.8	101.8
TOTAL	3159 33B0	4 4 5 60	6.44 8.89			1		2.20			2.5		534.5	650.2
HEAN	527 563 68 52		3.53 2.82 3.16 2.52		11.6 21.9		0.14			1.3	2.2	HEAN	89.1	108.4 17.7
S.D. (a)	62 48		0.72		10.4 19.6 -0.30			0.32		(4)	1.00 1.12	S.B. (H)	4.5	16.2
CORR.	0.70	CON. (A)	(A) 5.22		(A) 117.51			0.00			63	CORR		0.29
CON. (A)	(A) 278.42		(B) 0.57	COM. (B)	(B) -0.56		(A)	0.37			_	CON. (A)	(A)	15.74
CON. (8)	(6) 1.54					CON. (B)	(B)	0.00	e de la companya de La companya de la co			CON. (B)	(B)	1.04

Table 33. CORRELATION between - Magaren and Dier Alla (Rain season)

	DATE	TDS110	TOSLIO	DATE	KXnO4 K	(Bn04	DATE	S04 S0	м	DATE	11113	1113	DATE	, K.	K	DATE	C1	CI
1	1 10 79			11 11 79 9 3 80			1 10 79 11 11 79	64.2 78					11:11:79			1 10 79 11 11 79	84.8 79.1	109.5 94.9
	11 11 79 9 3 80 5 5 80	263	378	5 5 80	6.61	7,58	9 3 8U 5 5 8D	23.1 35.	8	9 3 80	0,56	0,40	9 3 80 5 5 80 1 4 80		5.6	9 3 80 5 5 80	38. i 83. 3	38. I 89. I
	1 4 86	446	548		13.30	6.50	1 4 80		.3	1 4 80	0.20	0.36	20 1 88 3 2 80	4.6 5.7	5.2	1 4 80 20 1 80	69.9 58.0	78.3 100.2
4000	3. 2.80	502	885		6.82	8.116	3 2 80 8 2 81	56.8 141.	2	3 . 2 80 .	0.34	0.34	8, 5 81	6.0 6.8	6.5	3 2 80 8 2 81	73.8 67.0	128.0 127.0
1	7 1 8 17 5 8	410	238	17 5 81	11.22	6.79	7 1 81	52.6 28 95.9 86	4	7 1 81	0.72	1.80		6.0	5.2 4.8		69.6 115.3	25.5 83.3
1	12 4 81 10 3 81	360	400	TOTAL	183.75 19	92.53		42.8 42	. 9	MEAN	0.39	0.55	TOTAL	6.4 °	6.9 73.0	TOTAL	83.3 822.2	85.1 959.0
4	TOTAL MFAH	432	501	S.D.	17.82	18.25	HEAN.	630.2 730 52.5 60	.0	(11)	0.17	0.49 0.47	\$.0.	0.8	6.6 2.6	s.D.	19.1	87.2 32.1
2.41.84	S.D. (11)	93	163	CORR.		0.97	(8)	19.4 31 18.6 30	.4	CORR, CON. (A)	(A)	0.75 -0.39	COXR.		2.5 0.48	CORR.	18.2	30.6 0.28 52.84
	CORR.	(A)	0.68 8.76 1.18	CON. (B)			CORK. CON. (A) CON. (B)	(A) 14. (B) 0.1	18	CON. (B)	(B)	2,42	CON. (A)		1.59		(A) (B)	0.46
	CON. (B)	(8)	.1:10				. 60a, (B)	(0) 0.0	92	1 1 1		100				l. 19	•	

Table 34. CORRELATION between - Maqaren and Dier Alla (Whole season)

	1 10 10 1		ture of	411			1 1 1	<u> </u>	1							-	
DATE	TD5110	105110	DATE	KNn04	KHn04	DATE	\$04	\$04	DATE	NH3	8118	DATE	X	X	DATE	Cl	Cl
on C 70	465	554	30 6 79	5.50	8.70	30 6 79	86.4	65.0	30 6 79	0.10	0.26	12 8 79	4.8	6.1	39 6 79	85.2	128.7
30 6 79 12 8 79		532	12 8 79		4.80	1 10 79	64.2	78.6	1	0.10	0.12	11 11 79	4.8	6.1	12 8 79	84.8	98.9
12: 8 79 1 10 79			11 11 79	11.30	9.70	11 11 79	59.7	69. L		0.52	0.96	20 1 80	4.6	5.2	1 10 79	84.8	109.5
11 11 79			20 1 80	13.30	6.50		30.9	50.6	11 11 79	0.32	0.52	3 2 89	5.7	12.4	11 11 79	79.1	94.9
20 1 80	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	447	3 2 80	10.00	11.40	3 2 80	56.8	141.2	20 1 80	0.40	0.24	9 3 80	4.6	4.2	20 1 80	58.0	100.2
3 2 80		885	9 3 80	16.30	24.00	9 3 89	23.1	35.8	3 2 80	0.34	0.34	1 4 80	5.0	5.3	3 2 80	73.8	128.0
9 3 80		378	1 4 80	8.70	11.50	1 4 80	50.6	47.3	9 3 80	0.56	0.40	5 5 80	4.9	5.6	9 3 80	38.1	38.1
1 4 80		548	5 5 80	6.64	7.58	5 5 80	70.0	73.7	1 4 80	0.20	0.36	1 6 80	1.8	1.8	1 4 80	69.9	78.3
5 5 KD		439	1 6 80	9.20	12.60	1 6 80	55.5	65.8	5 5 80	0,40	0.48	1 8 80	1.7	7.6		83.3	89. I 88. 7
1 6 80			1 8 80	2.39	8.44	8 7 80	64.2	116.9		0.20	0.20	1 9 80	4.7	5.9	1 6 80	92.2 97.4	132.2
8 7 80		571	1 9 80	11.00	9.90	1 8 8D	69.5	73.6		0.20	0.96		5.0	5.8	8 7 80 1 8 80	86.1	99.9
1 8 80		633	24 12 80	0.60	3.39	1 9 80	75.3	69.9		0.09		11 11 80	5.3		1 9 80	88.8	101.8
1 9 80	606	604	7 81	15.63	22.04	15 10 80	70.0	76.5		0.12		24 12 80	6.3	.6.3 10.8	15 10 80	88.3	93.6
15 10 80	491	586	8 2 81	6.82	8.06	11 11 80	71.2	77.8		0.20	0.20		6.0	6.5	11 11 80	104.4	95.7
11 11 80	623	625	10 3.81	14.32	15.44	24 12 80	60.5	58.8		0.16	0.20	8 2 81 10 3 81	6.4	6.9	7 1 81	69.6	25.5
24 12 80	326	311	12 4 81	Serifice:		7 1 81	52.6	28.4		0.72	1.80 0.26		6.2	4 8	8 2 81	67.0	127.0
7 1 81	410	238	17 5 81		6.79	8 2 81	35.4	28.8		0.21	0.16		6.0	5.2	12 4 81	83.3	85.
8 2 81	326	344	1 8 81	10.70	12.50	10 3 81	42.8	42.0		0.06	0.10	1 8 81	18.0	20.0	17 5 81	115.3	83.3
10 3 81	360	400	28 9 81	7.60	7.00	12 4 81	48.2	49.4		5.17	8.18		10.0	8.5	I 8 81	106.5	142.0
12 4 81		580				17 5 81 1 8 81	95.9 82.6	86.0 95.0		0.27	0.43			140.2	28. 9 81	110.0	103.4
17 5.81	605	678	HEAN	9, 18	10.57	10101		1430.2		0.17	0.41	MEAN	6.1	7.0	TOTAL	1765.9	2043.5
1 8 81		499	S.D.	4.35	5.42	MEAN	60.2	68. I	1 1 2 2 2 2	0.17	0.40	S.D.	3.2	3.8	HEAR	84.1	97.
28 9 81	551	577	(h)	1.21	5.27 0.76	S.D.	18.1	27.5			0.71	(H)	3.1	3.7		18.0	28.
TOTAL			CORR	(43		(n)	17.7	26.9		(n)	-0.05	CORR.		0.86		17.6	27.
HEAN		518	CON. (A)	(/)	1.94	CORR.		0.54			1.76	CON. (A)	(A)	0.66			9.43
S.D.	99	136	CON. (B)	(B)	0.54	COY. (A)	(A)	19.31	1 1 1 1 1			CON (B)	(B)	1.04	CON. (A)	(n)	41.79
(H)	97	133				CON. (B)	(8)	0.81			1				CON. (B)	, (B)	0.60
CORR.	(4)	0.71 61.13		11.		0011, (1)			4		1, 1				-		
CON. (A)	(A)	0.97			100		**		1	100			:		1		
CON. (B)	(B)	0.31	1			l.			•								

Table 35. CORRELATION between - Magaren and Dier Alla (Rain season)

14010 331					
DATE TOSILU TOSILO	DATE KHADA KHADA	DATE SO4 SO4	DATE NIIS NIIS	DATE K K	
11 17 152 518 9 3 80 203 378 5 5 80 441 430 1 480 446 548 20 1 80 370 447 3 2 80 502 885 8 2 81 326 344 7 1 81 410 238 17 5 81 605 678 12 4 81 572 580 10 3 81 360 400 TUTAL 5186 6011 MEAN 432 501 5 0 97 170 (H) 93 163 CORR 0 68 CON (A) (A) 8 76	9 3 80 16 30 24 00 11 5 5 80 6 64 7 58 4 1 4 80 8 70 11 50 5 20 1 80 13 30 6 50 1 3 2 80 10 00 11 40 21 8 2 81 6 82 8 06 7 1 81 15 63 22 04 8 17 5 81 11 22 6 79 1 12 4 81 10 3 81 14 32 15 44 17 10 13 81 14 32 15 44 17 10 18 18 14 32 15 30 1 11 18 18 14 14 14 12 30 13 15 16 17 17 18 16 18 18 18 18 18 18 18 18 18 18 18 18 18	9	11 11 79 0.32 0.52 0.40 0.30 0.56 0.40 0.48 1.480 0.20 0.36 2.20 1.80 9.40 0.24 0.24 0.3 2.80 0.34 0.34 0.34 0.24 0.26 0.3 2.80 0.34 0.34 0.34 0.24 0.26 0.3 2.80 0.34 0.34 0.34 0.30 0.55 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	9 3 80 4.6 4.2 5 5 80 4.9 5.6 1 4 80 5.0 5.3 1 4 80 5.7 12.4 8 2 81 6.0 6.5 7 1 81 6.8 10.8 7 5 81 6.0 5.2 2 4 81 6.2 4.8	3 2 80 73.8 128.0 8 2 81 67.0 127.0 7 1 81 69.6 25.5 17 5 81 115.3 83.3 85.1 TOTAL 822.2 959.0 HEAN 74.7 87.2 S.D. 19.1 32.1 (II) 18.2 30.6 CORR. 0.28 CON. (A) (A) 52.84
CON. (B) (R) 1.18	[· · · · · · · · · · · · · · · · · · ·				

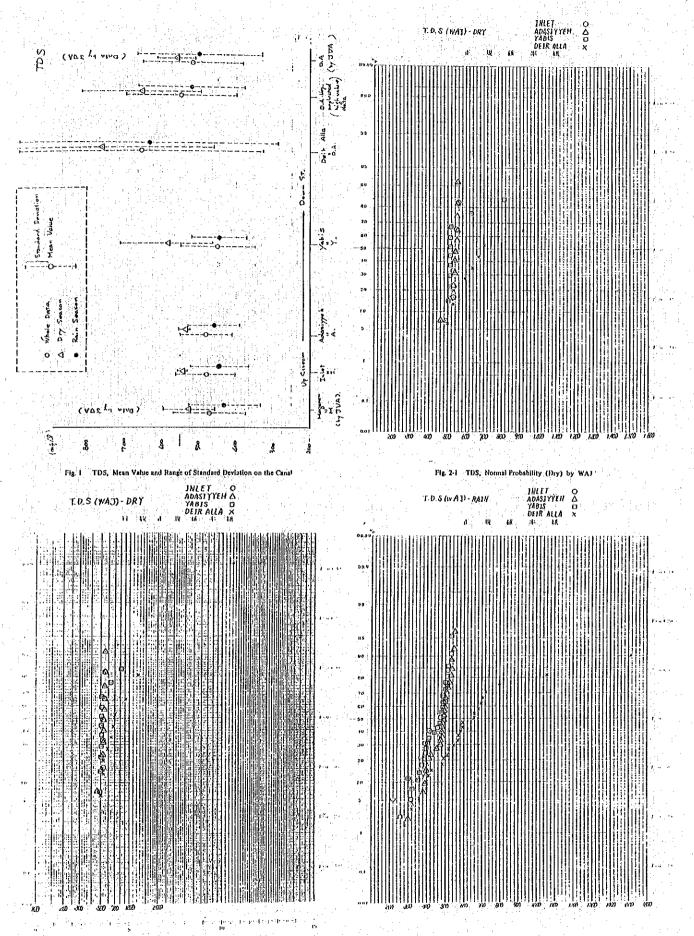


Fig. 2-2 TDS, Logarithmic Normal Probability (Dry) by WAI

Fig. 3-1 TDS, Normal Probability (Rain) by WAJ

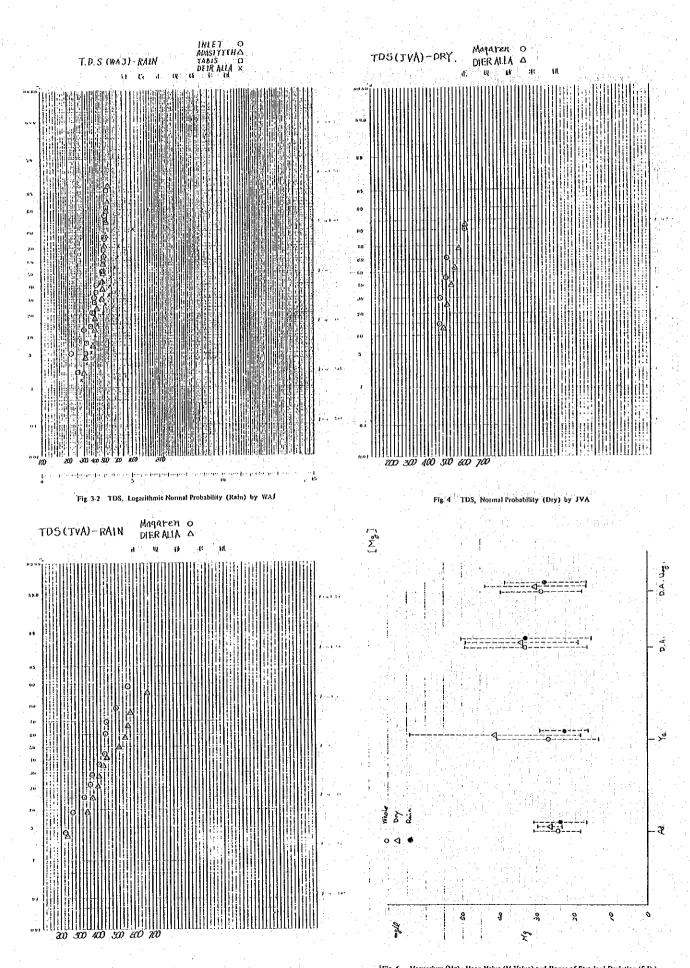
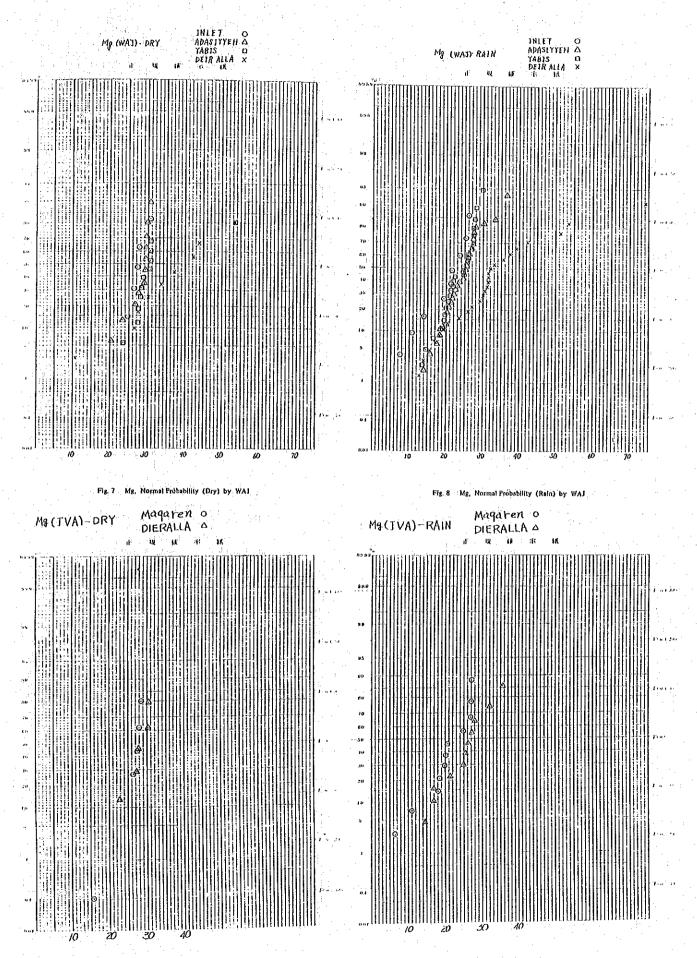


Fig. 5 TDS, Normal Probability (Rain) by JVA



ig 10 Mg. Normal Probability (Rain) by JVA

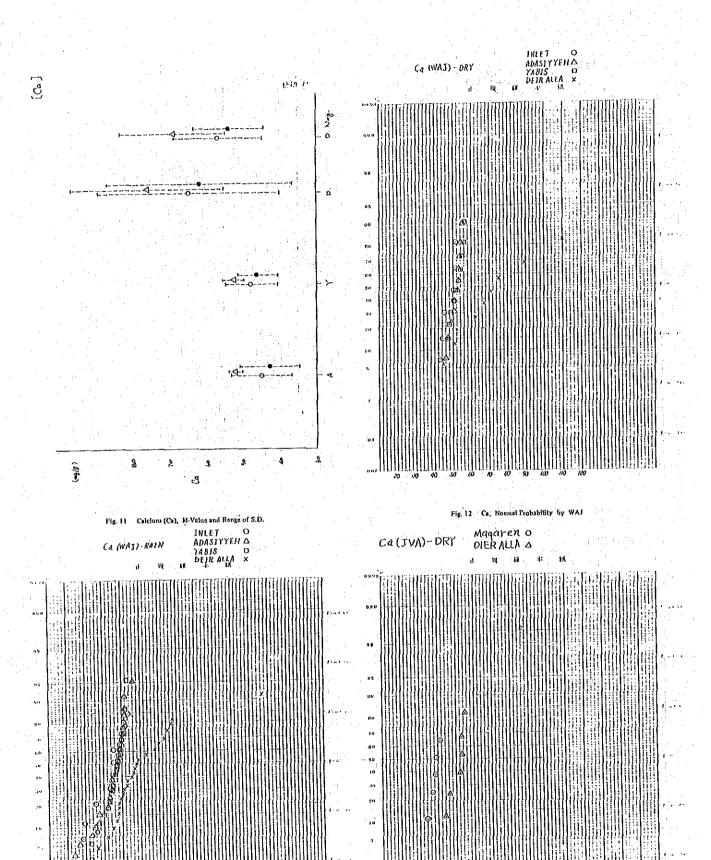


Fig. 13 Ca, Normal Probability (Rain) by WAI

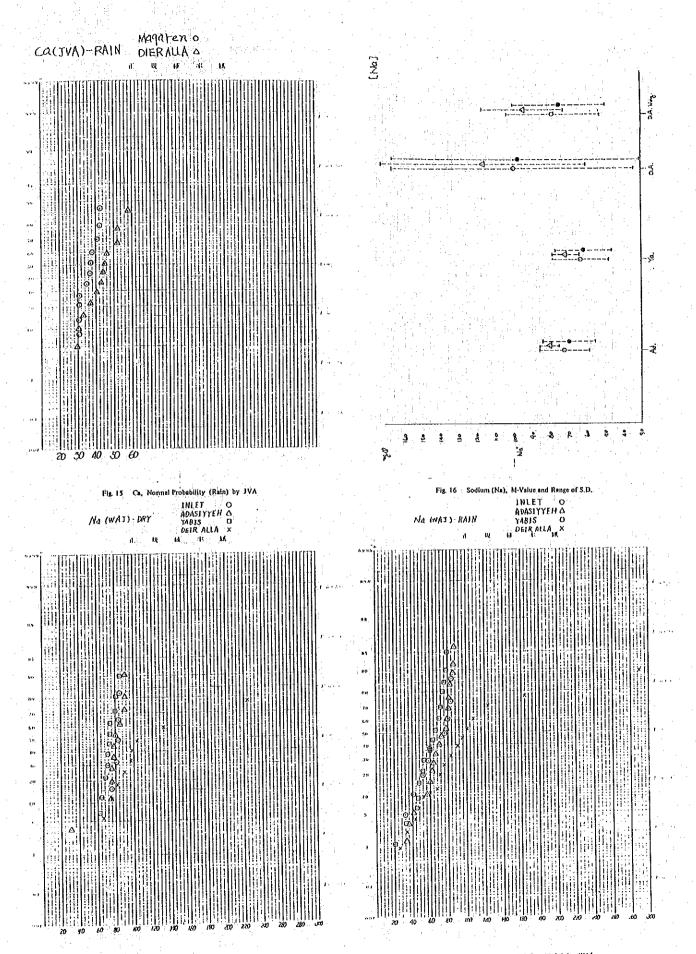
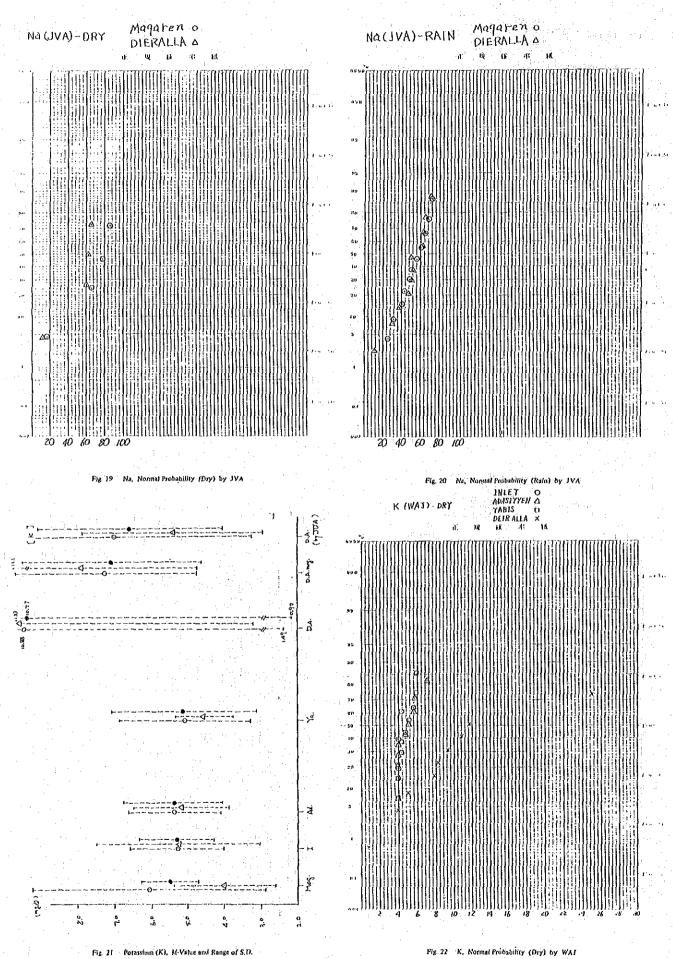


Fig. 17. Na, Normal Probability (Dry) by WAJ



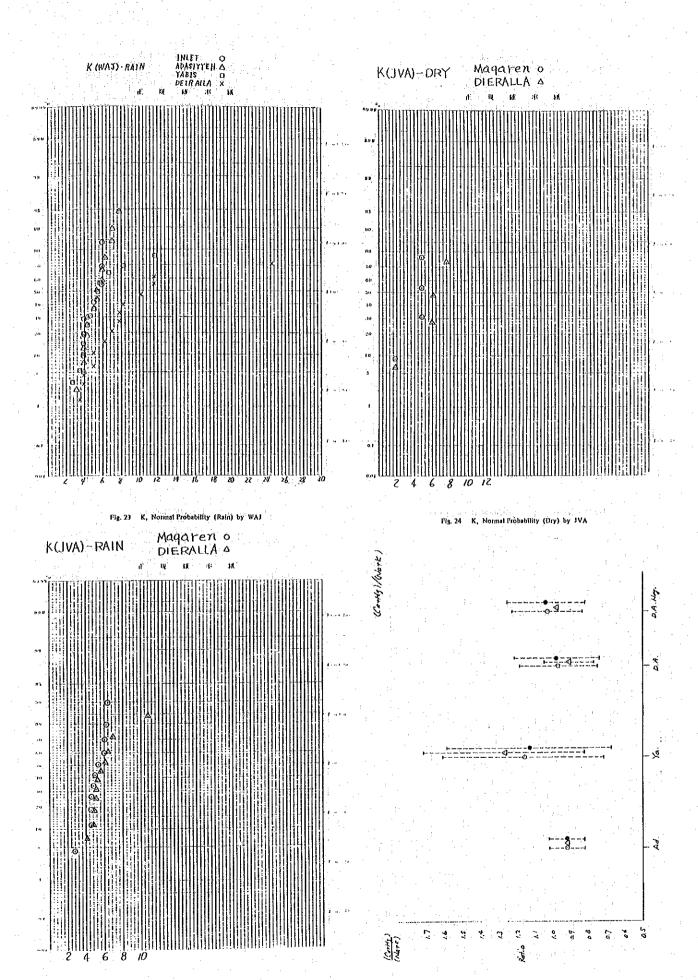
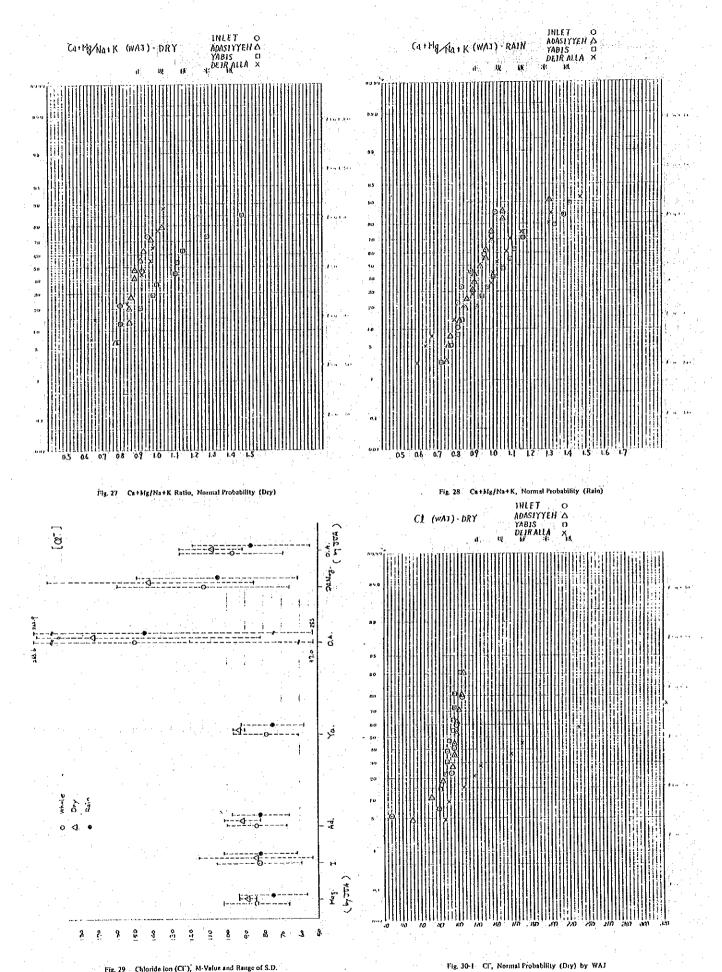


Fig. 26. Ratio of (Ca+Mg) to (Ha+K), M-Value and Range of S.D.



– 36 –

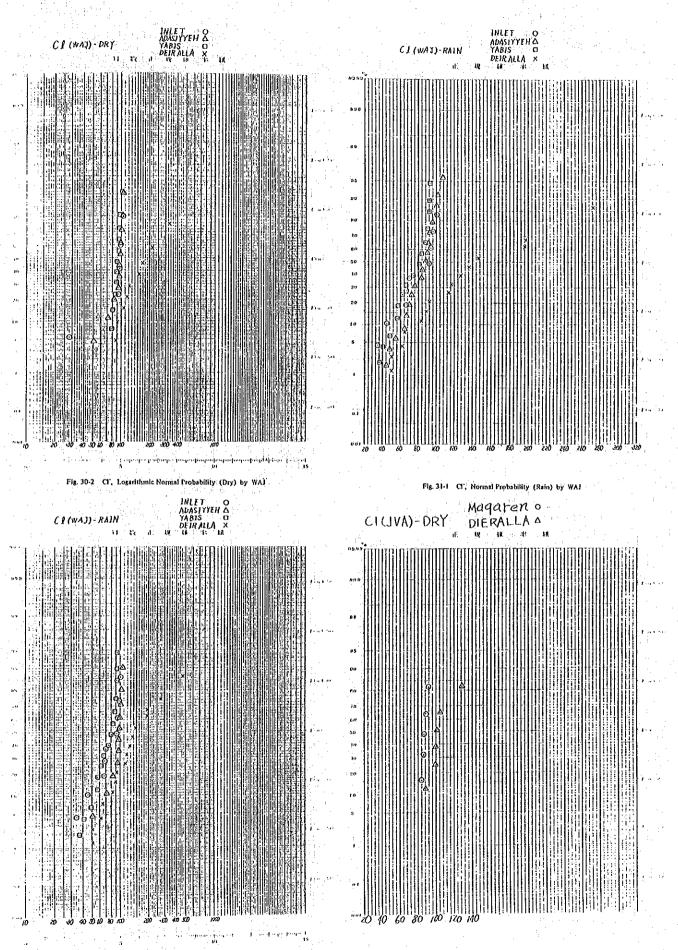


Fig. 31-2 Cl., Logarithmic Normal Probability (Rain) by WAJ

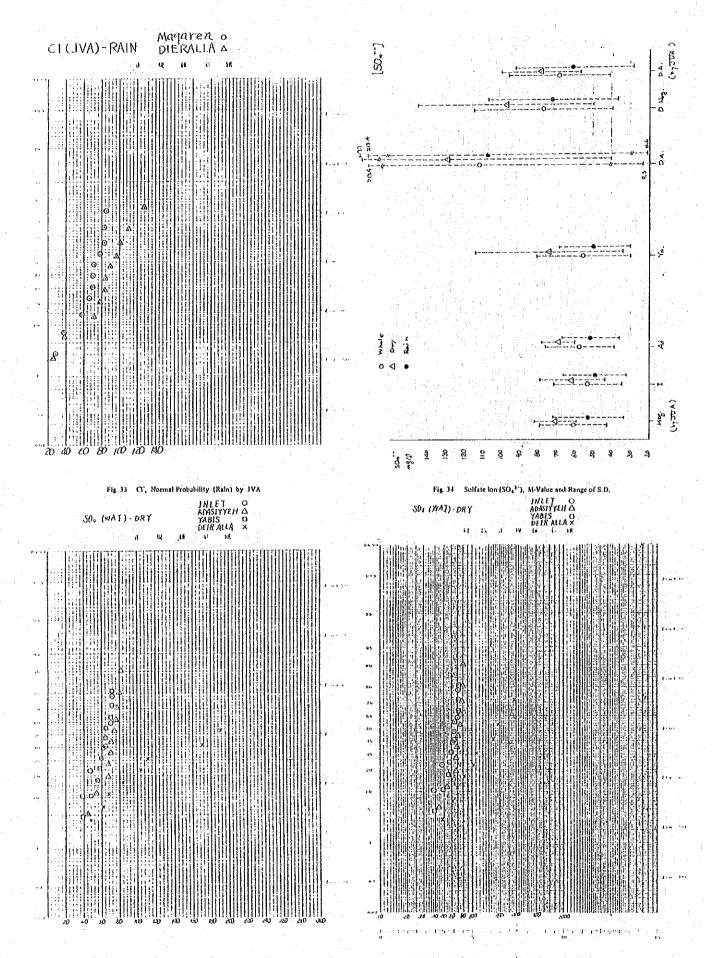
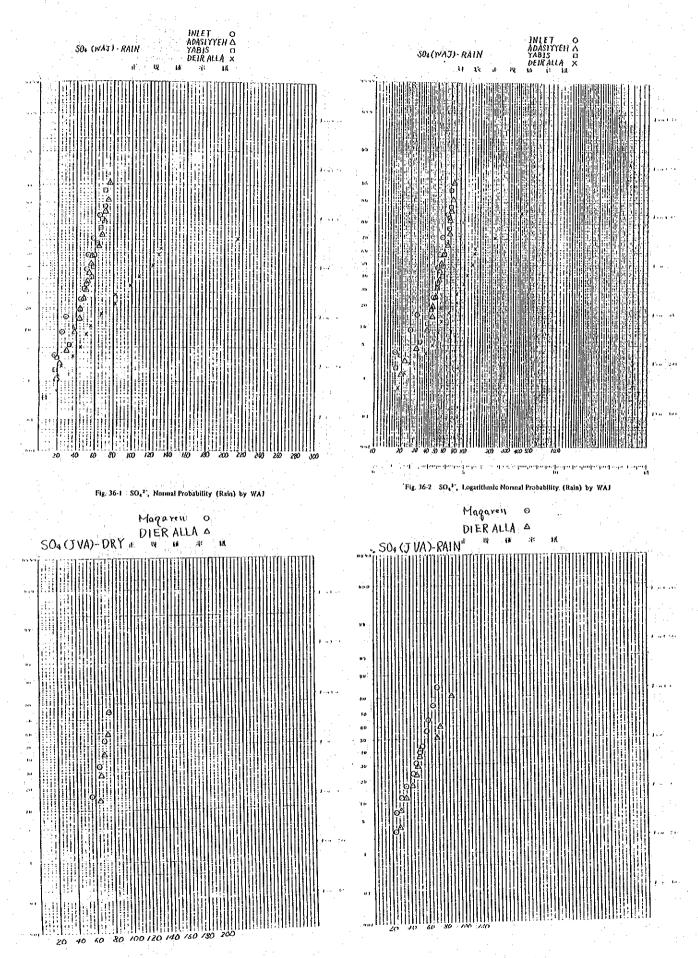


Fig. 15-1 SO₄1, Normal Probability (Diy) by WAJ



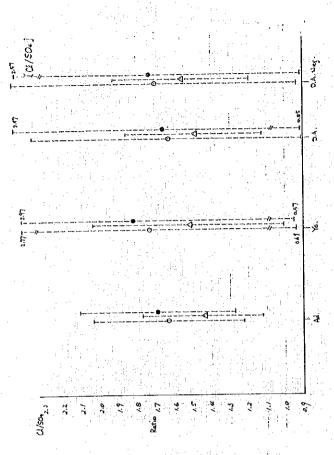
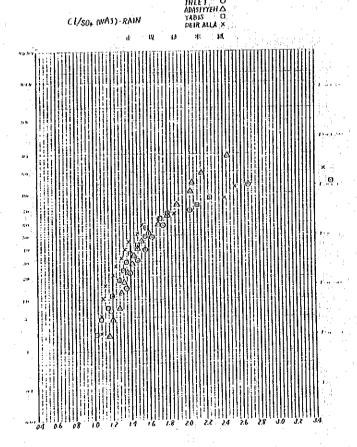


Fig. 39 Ratio of Ci to SO42, M-Value and Runge of S.D.



Cesos (WAI) - DRY
ADASIYYEH A
YABIS O
DEFRALK X

II. W. H. II.

A Company of the
Fig. 40 Cl./SO42. Normal Probability (Dry) by WAI

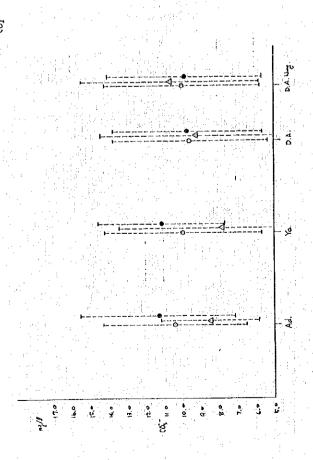


Fig. 42 Carbonate Ion (CO32), M-Value and Range of S.D.

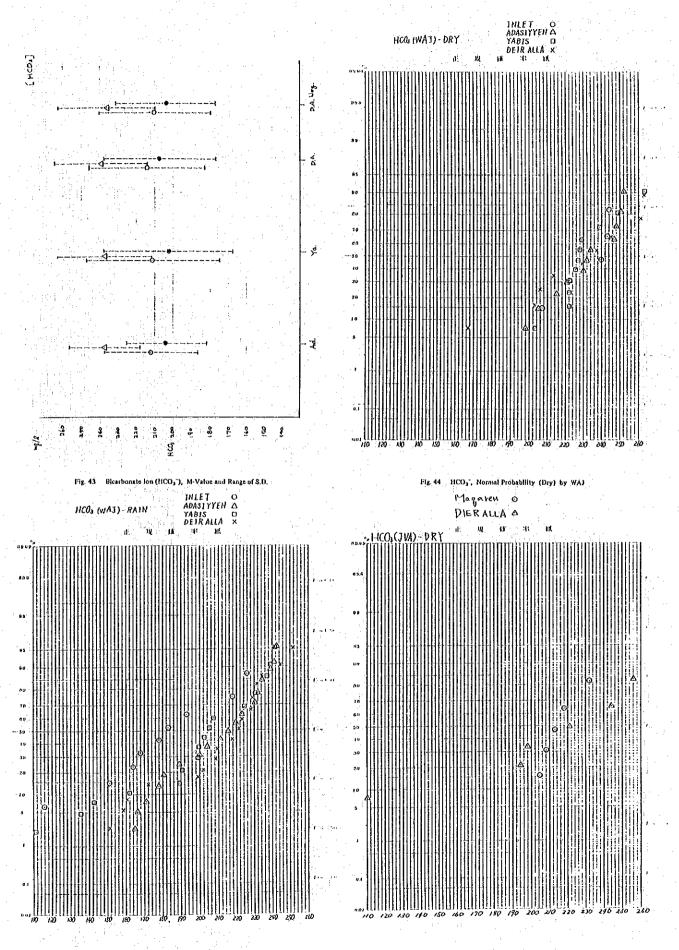


Fig. 45 11CO., Normal Probability (Rain) by WAJ

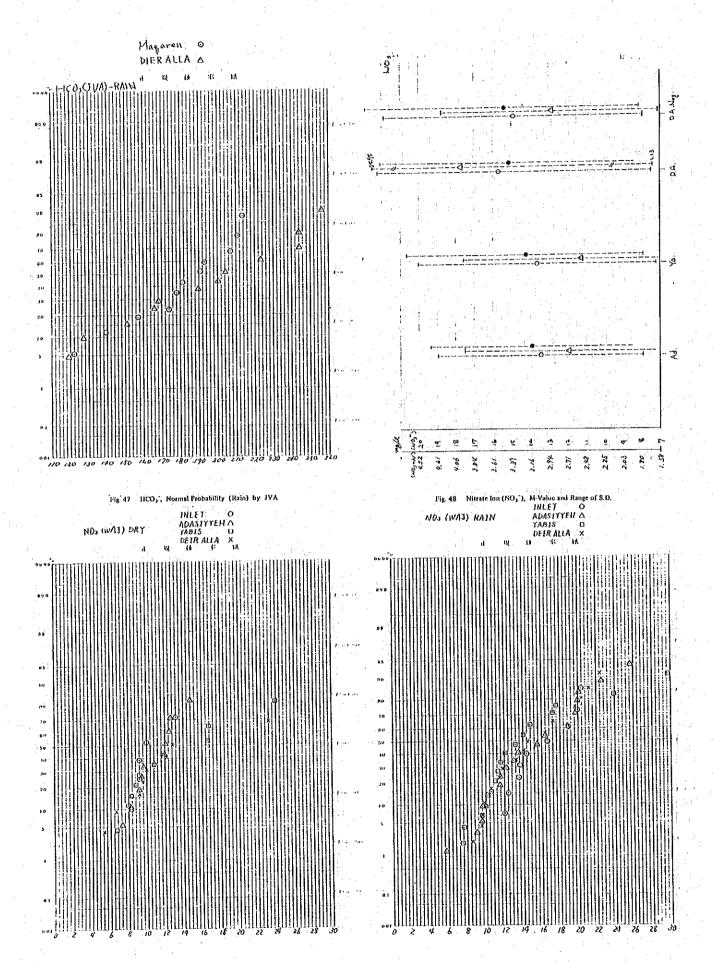


Fig. 49 NO₃, Nomical Probability (Dry) by WAJ

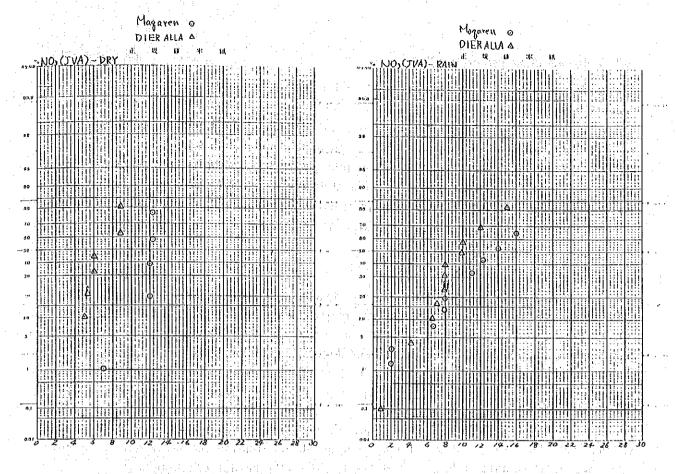
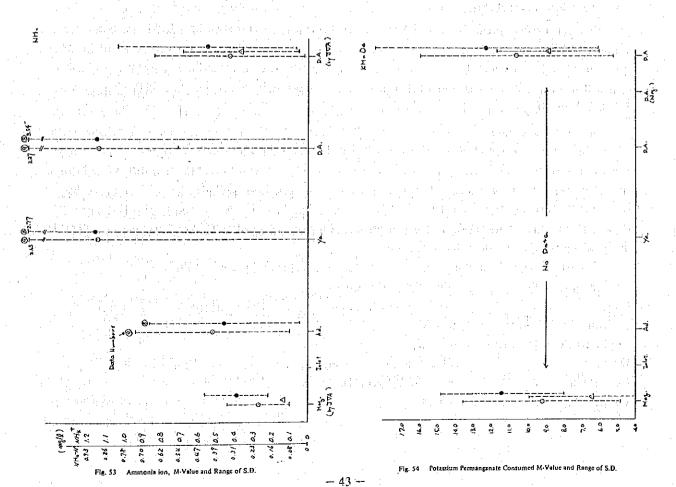


Fig. 51 NO, Normal Probability (Dry) by JVA

Fig. 52 NO, , Normal Probability (Rain) by JVA



2-2 Trihalomethane Precursor

Water samples were collected at Inlet of the East Ghor Canal and at Addassiyyeh on May 28, 1985, for the purpose of estimating amounts of trihalomethane precursor (hereinafter precursor) in connection with water purification at Zay. Also, we filtered part of the samples by a $0.45 \,\mu m$ pore size membrane filter in the same day in order to measure a total amount and a dissolved amount of precursor. Furthermore, we used part of the samples for testing at the Water Authority Laboratory (WAL) and brought the remainder back to Japan for water quality analysis. In the WAL tests, we conducted a trihalomethane formation potential (THMFP) test of the raw sample water and the jar tested water.

1) Test Methods

(1) Jar Test

The sample water taken at Deir Alla was divided into five one liter beakers and, while agitating by magnetic stirrer, aluminum sulfate $[Al_2(SO_4)_3.16H_2]$ was added at a rate of 10, 20, 30, 40 and 60 mg/ ℓ . After a flock was formed, we left it stand for a while and then checked the quality and THM formation potential of the supernatant.

(2) THM Formation Potential Test

(2-1) Methods in WAL

To the 200 ml samples obtained from the raw water and from post-jar test water (60 mg/l) of alum dose), we added sodium hypochlorite solution (concentration at about 2,000 mg/l from Japan) and then left it quietly in a 20° C. thermostat for 24 hours.

(2-2) Methods in Japan

Prelimarily obtained a consumed amount of chlorine in the sample, added the consumed amount of chlorine and 2 mg/ ℓ sodium hypochlorite to the sample of temperature set at 20°C, then, immediately used sulfuric acid or sodium hydroxide solution to adjust the pH to 7.0 \pm 0.2 and left it in a 20°C, thermostat for 24 hours. After this, measured the THM by solvent extraction method.

(3) Measurement of THM

8 ml of the THM formation potential sample was took into a 10 ml plugged centrifugal precipitation tube, and then 1 ml n-pentane was added to extracted THM from it. After being finalized extraction procedure, the plug part of the tube was sealed with teflon tape, then we turned it upside down and carried it back to Japan. That is, the methods of THM analysis is n-pentane extract method. For cross check, we had arranged with WAL to measure THM in the given portion of the same solution.

The gas chromatographic conditions in Japanese Laboratory are as follows:

Gas Chromatograph:

Shimazu GC-4CME

Column:

10 % DC-550, 60-80 mesh, Chromosorb W, 3 mm x 3 m

Column Oven Temp:

100°C.

Inlet and Detector Temp:

150°C.

Detector:

Electron Capture Detector (ECD) 63 Ni 10 m Ci

Carrier Gas:

N2, 50 ml/minute

Range:

 10×8

(4) Other Parameters

(A) Turbidity

Turbidimetric Method:

Indicated by the amount of kaoline in mg one liter sample.

(B) Color

Platinum-cobalt Method:

Indicated by the amount of platinum in mg within one liter sample.

(C) Total Alkalinity

Indicated by the amount of 0.02N-H₂ SO₄ used to neutralize one liter sample to pH 4.8.

(D) Chloride Ion

Mercuric Nitrate Method:

Adjusted the pH of the sample to 3.1, and titrated it in mercuric nitrate solution using diphenylcarbazol as indicator and then obtained chloride ion.

(E) Sulfate Ion

Barium Chromate Method:

Added barium chromate to the sample to make barium sulfate from sulfate ion, added ammonia solution to it to precipitate excess barium chromate, measured the absorbance by spectrophotometer at 370 nm wavelength of the yellow of the chromate ion formed by permutation from sulfate ion, and then obtained a sulfate ion concentration.

(F) Nitrate Nitrogen

Made the sample react to brucine in the presence of undiluted sulfuric acid, measured the absorbance by spectrophotometer at 415 nm wavelength of the formed yellow, and then obtained a nitrate iron concentration and indicated it as the amount of nitrogen in nitrate ion.

(G) Ammonium Nitrogen

Made ammonium ion in the sample to monochloramine by the co-existence of sodium hypochlorite of alkalinity, measured the absorbance by spectrophotometer at 720 nm wavelength of the bluish green indonaphtol formed in α -naphatol reaction with it, and then obtained an ammonium iron concentration and indicated it as the amount of nitrogen in ammonium ion.

(H) KMnO₄ Consumption Value

Made the sample to sulfuric acidic, boiled it for five minutes after adding KMnO₄, and then indicated the amount of KMnO₄ consumed in mg within one liter.

(1) Total Hardness

EDTA Method:

Make calcium ion and magnesium ion react with EDTA, and then obtained calcium ion and magnesium ion from the reacted amount of EDTA, and indicated it in mg as the amount of calcium carbonate in one liter.

(J) Total Residual

After vaporizing and solidifying the sample, dried it at 105°C., and indicated in mg the weight of the residual in one liter.